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PUERPERAL ECLAMPSIA.

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IN most handbooks on Midwifery, excepting a few of the more modern, puerperal convulsions are divided into three classes; viz., the hysterical, the epileptic, and the apoplectic. It is difficult to understand why such a classification was ever made. There is only one of these three that has any claim to be considered a distinct disease *sui generis;* and that is the epileptic form, or puerperal eclampsia, as it is more correctly termed. The other two are merely attacks of hysteria or apoplexy, which happen to come on during pregnancy or parturition. But, in my own opinion, it would be much more rational to divide cases of puerperal eclampsia into three kinds, according to the time when the attack begins, whether *before*, *during*, or *after* labour; for the prognosis

and treatment especially differ widely in each of these varieties. My own statistics of puerperal eclampsia abundantly prove this. Since I have been in practice, during a period of nearly fifty years, I have met with 36 cases of puerperal eclampsia. Of these, 11 came on during pregnancy (before any signs of labour were present), 20 during labour, and 5 after labour. Now, in the eleven that occurred *before* labour, six mothers, or just over one-half, died, and nine children, or more than two-thirds. In the twenty that occurred *during* labour, five mothers, or exactly one-quarter, died, and nine children, or scarcely one-half. In the five that came on *after* labour, no mother and no child died. The prognosis is therefore nearly as favourable as it can be in the third class of cases, and very grave in the first; whilst in the second it occupies an intermediate position.

Before referring more particularly to the prognosis and treatment of puerperal eclampsia, I wish to make a few other passing remarks, from a statistical point of view, on my 36 cases. That 36 cases are a good many to occur, as most of them did, in the private practice of one individual, may be shown by a reference to some very useful statistics, which are drawn from the reports of the Guy's Hospital Charity, and are given in Dr. Galabin's *Manual of Midwifery*. It is there stated that eclampsia occurred once in 842 deliveries; and Dr. Galabin remarks just afterwards, "The general estimate for Europe is about one case in 500 deliveries." With respect to my own experience as to the frequency of eclampsia, I may remark that the only way to form a correct estimate is to carefully eliminate all the cases to which I was called in as consultant, and to record those only in which I was the original attendant. I thus find that there were 5 cases

of eclampsia in 1,583 labours, or about 1 in 326, showing that the frequency of eclampsia in my own practice is nearly as much above the average as that of Guy's Hospital Charity is below it. With respect to convulsions in general, whether coming on before, during, or after labour, there are two or three other facts which have been established by others whose observations are still further confirmed by my own: one of these is, the greater frequency of convulsions in first labours; for instance, I find that 23 of my cases were primiparæ, and only 13 multiparæ, the primiparæ being about 66 per cent., whilst in the record of the Guy's Charity they are 60 per cent. I find also that convulsions occur more often in twin cases, as compared with single births. In my 36 cases, there were three of twins, *i.e.* an average of 1 in 12; whereas in ordinary labours twins occur only about once in 80 or 90 cases. Both of these facts would tend to show that the greater tone and tension of the abdominal parietes in primiparæ and the greater distension of the abdomen in twin cases are predisposing causes of eclampsia; in all probability, by the increased pressure thus produced upon the vessels of the kidneys and the consequent derangement of the functions of those organs, which is, with scarcely an exception, the invariable accompaniment of puerperal eclampsia. The honour of discovering the condition of the urine in puerperal eclampsia is due to Dr. Lever of Guy's Hospital, who, in the year 1842, published a paper in the Guy's Hospital Reports to prove that albuminuria is a constant accompaniment of puerperal convulsions. So constant is it, that Dr. Galabin states that "out of all cases in the Guy's Charity during the last forty years, in which the urine was examined, it was free from albumen

throughout in only two. The total number of cases in which the presence of albuminuria is recorded is 41." As regards my own cases, I did not make any careful observations as to the state of the urine until 1861; but after that time I did so in every case (with but two exceptions, where I had no opportunity of testing it), and the result was that in all the cases noted, 22 in number, albumen was invariably present.

The prognosis in puerperal eclampsia is always serious. As Dr. Galabin points out, the mortality of the mothers is now reckoned at about 30 per cent., and of the children at about 50 per cent. In my own cases, 11 mothers in 36 died, which is about the same average, and 19 children, which is slightly above this average. All observations, however, tend to show that the earlier the convulsions occur with regard to labour, the more unfavourable is the prognosis. This is shown most conclusively in my own cases, in which, as I have already pointed out, six mothers and nine children died in eleven cases of convulsions *before* labour; five mothers and nine children in twenty cases *during* labour, and none of either in five cases *after* labour. This last is unusually favourable in comparison with the experience of others; for Dr. Galabin states that the maternal loss in those after delivery is on an average about 8 per cent. But these five cases of mine are but a small number from which to draw any very definite conclusions.

I have already pointed out how widely the prognosis of cases of puerperal eclampsia differs according to the time when the attacks came on, whether before, during, or after labour; and I shall now show that there is nearly as wide a difference in the *treatment* of these three classes. This chiefly refers to the question whether it is advisable

to hasten delivery. Of course, in the third class, delivery is already accomplished, and is therefore out of the question. In the first class of cases, when there are no signs of labour, it is still a *vexata quæstio;* but I think that in the present day most authorities are agreed that, when all other remedies fail, delivery should be had recourse to as a *dernier ressort.* In the second class of cases, which are by far the most numerous, nearly every authority, I think, is of opinion that it is most desirable to hasten delivery.

There is another point in the treatment of puerperal eclampsia about which medical opinion is not, I think, so unanimous as it ought to be. I refer to the use of blood-letting in such cases. I have long held a very strong opinion as to the value of venesection, and have at various times published cases in support of my opinion. More than twelve years ago an article appeared in the *Medical Circular* for May 15th, 1878, in which the following reference was made to some of these cases: "Dr. Swayne has from time to time brought forward his cases at the Bath and Bristol Branch of the British Medical Association; and in the current number of the *Obstetrical Journal* is recorded one" (No. 28 in my list), "in which the withdrawal of ʒxxx of blood in a full stream from a large orifice was followed by immediate and permanent relief of all the symptoms. The convulsions had gone on for twelve hours before bleeding was resorted to. They had increased in frequency, until at last as many as three took place in an hour, notwithstanding that a full trial had been given to anæsthesia in the form of hydrate of chloral and bromide of potassium; three half-drachms of the former and three drachms of the latter having been given. The bleeding appeared at once to produce a decided consti-

tutional effect. The swollen livid face became pale, the breathing less stertorous, and the pulse soft and feeble, instead of full and throbbing. From that time the fits, which were recurring three times in an hour previously, only returned four times during the next ten hours, and were much mitigated in severity. Signs of labour also came on, and delivery was soon completed with the forceps." I could, if there were time, give many similar cases; suffice it to say, that my own experience has convinced me that in the treatment of puerperal convulsions the three most important remedies are, bleeding, anæsthetics, and delivery. The secondary remedies which were used in most of my cases were purgatives of calomel and jalap, enemata of turpentine and castor oil, and also of assafœtida, cold applications to the head, and counter-irritation by blisters, sinapisms, &c. I need not stop to discuss the efficiency of these last, but will merely state briefly my experience of the first three. On referring to the notes of my 36 cases, I find that in 24 (just two-thirds) bleeding was resorted to, the quantity of blood taken varying from ten to thirty ounces. In 18 it was decidedly beneficial, and appeared to be the most efficacious remedy employed. In nearly every case it was speedily followed by a great diminution in the amount of albumen contained in the urine. To this cause I believe that it owes its great power as a remedy.

By anæsthetics, I mean the inhalation of chloroform or the administration of chloral either by the mouth or rectum. These two remedies, which are nearly similar in their action, are much better than opium, which they have all but superseded. They are both very valuable, especially chloral. I should also mention bromide of potassium, which is an excellent auxiliary. Anæsthetics were employed

in 14 of my cases. In four of these the symptoms were much relieved or altogether cut short by chloroform, and in three by chloral. In one case (No. 26) bleeding gave relief for a time; but the fits returning, the patient was kept under the influence of chloroform for seven hours, and had no more convulsions. In another case (No. 22) chloral in large doses was equally efficacious. Delivery, either by the induction of premature labour, by the forceps, by turning or craniotomy, was had recourse to in 14 cases, and in eight gave decided relief. The result of my own experience is, that I am inclined to consider bleeding and anæsthesia as the two important remedies, I can hardly say which is the more important; whilst delivery is little inferior to them, its inferiority being due to the circumstance that it is, of course, not available in *post partum* convulsions, and not always in those that occur before labour. Where it can be applied, the forceps is the best and safest mode of hastening delivery.

As I have frequently referred to my own statistics, and especially to favourable cases which prove the value of venesection, it is but right that I should say something of my unfavourable cases, where venesection and every other remedy failed to avert the fatal termination. They are 11 in all, as follows:

No. 1, Case 9.—Convulsions in seventh month; no sign of labour. Bleeding to 20 ounces, six leeches, cold to head, purgatives, sinapisms, etc. Died undelivered.

No. 2, Case 15.—Convulsions in seventh month. Bleeding to 14 ounces, purgatives, cold to head, chloroform. Fits ceased, but she died soon after giving birth to a dead child.

No. 3, Case 17.—Convulsions at commencement of labour. Seven leeches, chloroform, cold to head, purga-

tives, etc. Delivery terminated speedily after dilatation with Barnes's bags. No more fits, but she died on the third day from total suppression of urine.

No. 4, Case 18.—Convulsions at full term. Bleeding to 15 ounces, purgatives, cold to head, etc. Gave birth naturally to a dead child. No more fits, but she died comatose the following night.

No. 5, case 20.—Convulsions in eighth month; no sign of labour. Bleeding to 14 ounces, purgatives, cold to head, and blisters. Twenty-six fits before bleeding, and none after. However, she gradually sank, and died undelivered on the next day.

No. 6, Case 23.—Convulsions in eighth month; no sign of labour. Bleeding to 18 ounces, purgatives, cold to head, delivery by turning, chloroform. Fits continued, abating gradually; but she still suffered from some degree of aphasia and dysphagia. She died suddenly of convulsions at the end of three weeks, after eating a hearty meal.

No. 7, Case 25.—Convulsions in ninth month; no sign of labour. Cold to head, purgatives, choral in two doses of 30 grains. No fit for an hour after last dose; os too rigid to turn, delivered by craniotomy; convulsions returned two hours afterwards, and she died.

No. 8, Case 29.—Convulsions in ninth month; no sign of labour. Chloroform, enema of 40 grains of chloral, delivery by forceps, blister to back of neck. Died on third day.

No. 9, Case 31.—Convulsions at full time. V.S. to 10 ounces, tinct. opii. mxv., blister and sinapisms. Died soon after delivery.

No. 10, Case 32.—Convulsions at full term. Bleeding to five ounces, chloroform and an enema of 40 grains of

chloral, also an enema of turpentine and castor oil. Died on second day.

No. 11, case 35.—Convulsions at full term. Cold to head and sinapisms, delivered naturally. Fits ceased after labour, and patient went on well, but died at the end of a fortnight from an attack of measles.

I may here remark that these 11 cases refer only to the maternal mortality, and not to that of the infants. There is no need to go into this; the great infantile mortality in puerperal eclampsia is no doubt due to the uræmic condition of the mother's blood, and to the interference with the utero-placental circulation.

It will be observed that six of these cases occurred during pregnancy and before labour—a class of cases which, as I mentioned before, is by far the most dangerous both to mother and child. In four of these cases venesection was not practised, as it was considered to be contra-indicated by the state of the pulse. In some of the others it gave great relief, and in one cut short the convulsions.

In a paper which I published in 1878, and to which I have already alluded, I attributed the efficacy of bleeding in puerperal convulsions to the effect it had of diminishing the amount of albumen contained in the urine. The truth of this opinion was at that time corroborated by the result which had followed the treatment of a number of cases of uræmic convulsions and scarlatinal dropsy by copious venesection. Some of these cases were published by Dr. Robert Kirk in the May and June numbers of the *Glasgow Medical Journal* in 1877, and others by Dr. Bramwell of Perth, in the *Edinburgh Medical Journal* for July, 1875. In every case in which Dr. Kirk tried bloodletting in scarlatinal dropsy the treatment proved eminently

successful; whilst in 32 cases of the same disease in which Dr. Bramwell had recourse to general abstraction of blood there was only one death, and that a case which was seen too late for treatment to be of any service. In Dr. West's well-known work, *Diseases of Children*, a similar favourable testimony is given as to the efficacy of blood-letting in such cases.

After all that I have said in praise of bleeding in puerperal eclampsia, I shall no doubt very naturally be asked: How, then, do you account for the very general disuse of this remedy in the present day? I must honestly answer that, as regards puerperal convulsions, I cannot account for it. I know of no good reason which has ever been given against its employment. But yet at the present time this valuable remedy is very seldom used, for no better reason, that I can find, than that in the treatment of all diseases bleeding is quite gone out of fashion. It is true that we have in the latter half of this century acquired two most valuable agents in the treatment of eclampsia—viz., chloroform and choral,—and these have, perhaps, to some extent, caused us to lose sight of the value of bleeding. But in the first half of this century a very different state of things prevailed. Perhaps there was no remedy about which doctors were so thoroughly agreed as about bleeding in puerperal eclampsia. The cautious Denman was not afraid to take away as much as 40 ounces of blood, and Blundell as much as 70. Dr. Ramsbotham, whose book on Midwifery was the usual text-book at that time, says: "Bleeding is our great reliance; the lancet is our sheet-anchor, and blood may be taken to a very great extent: it may be necessary to draw 40, 50, or 60 ounces, nay, even more, in the course of a few hours." Now, however, the case is widely

different. Bleeding has been so universally abandoned in the treatment of disease, that the faith of many as to its efficacy in puerperal convulsions has been somewhat rudely shaken. Nay more, there is now such a wide-spread prejudice against it on the part of the public, that it requires some moral courage on the part of the medical attendant to propose such a remedy, even in the most desperate cases.

All those therefore who, like myself, still believe in it, ought to be ready to give a reason for the faith that is in them. This has been done from time to time by others as well as myself; and I am glad to see that in other countries—in America, for instance—a reaction in favour of this old remedy for puerperal eclampsia is taking place. I lately procured a very useful and sensible little book, by Dr. Landis, an American physician; it is called a *Compend of Obstetrics*, is in the form of question and answer, and is especially adapted to the use of medical students. I cannot do better than conclude by quoting the following advice from it, as to the treatment of puerperal eclampsia:

"What treatment should be employed during the attack?

"1.—Venesection, as the quickest and most powerful means of reducing the vascular tension, cerebral hyperæmia, and secondarily the nervous irritability.

"2.—Chloral and bromide of potassium by the mouth, if the patient can swallow, or in double doses by the rectum.

"3.—Ether or chloroform may be given until the chloral, etc., can be administered and take effect.

"4.—The labour, if in progress, should be terminated as soon as possible without violence.

"5.—Purgatives may be given, especially after delivery.

"What objections are urged against venesection?

"That it is out of fashion, and does not reduce vascular tension in a healthy dog.[1]

"What drug was especially used before the discovery of chloral and the bromides?

"Opium, which relieves the irritability of the nerve-centres.

"What objections exist to its use?

"It allays nerve irritability at the expense of all other indications; when the kidneys are seriously crippled, it may itself cause death; it is no better than other less dangerous remedies."

My own experience, founded on the 36 cases so often referred to, leads me to endorse this opinion; and I may mention that I have recorded that experience by taking copious notes of each case at the time of its occurrence. But as these notes are much too long to be published *in extenso*, all the leading facts contained in them are stated in the synopsis given at pp. 16—21.

I give in detail the record of my thirty-sixth case, because it was one of such unusual gravity that I thought, when I first saw the patient, that it would prove a striking exception to my hitherto favourable experience of *post partum* eclampsia. It is as follows:

On August 20th, 1890, I was summoned to Weston-super-Mare to see Mrs. H.—a primipara, æt. 37—in consultation with Mr. Rossiter and Dr. Fraser. I arrived about 4 p.m., August 20th, and was told that she was confined about 7 a.m. on the previous day. The labour was rapid and in every respect favourable. The child

[1] Dr. Landis, however, adds immediately afterwards: "Veratrum viride may be used instead, if there is time to wait upon its action." This remedy is at present much praised in America. I have not yet tried it, but ntend to do so at the first favourable opportunity.

was born alive, but was rather small. She went on well until 9 a.m. on the next day, when she was suddenly seized with a violent epileptiform convulsion. She did not regain consciousness after the fit, but remained insensible with dilated pupils and, occasionally, stertorous breathing.

Mr. Rossiter, who was the original attendant, found that there was albumen in the urine, the deposit forming about one-fifth of the whole. Having sent for Dr. Fraser, they put some leeches on her temples and cupped her over the kidneys; but Mr. Rossiter did not think that the amount of blood thus obtained exceeded ℥iij. They also gave her ʒi. of potassic bromide in four doses, a purge of calomel and jalap, and one drop of croton oil. Yet, notwithstanding these measures, the fits recurred—at first about one every hour, and then more frequently.

I arrived about 4 p.m., and she then had another fit, being the twelfth. After a consultation, I bled her to ℥xvj. The pulse, which before this was hard and bounding, became softer and quicker, and the countenance, which before was very flushed, became paler after the bleeding; and she began to show some signs of sensibility, and tried to get out of bed to have a motion, as her bowels began to act freely. However, about a quarter past five she had another fit, but not so severe as the last; and, after a longer interval, we ordered her 15 grains of potass. bromide and 20 grains of chloral hydrat., to be given by enema in half-an-hour's time, and to be repeated if necessary. I then had to leave to catch the Bristol train.

I did not hear anything more about her until August 26th, six days after this, when I received a letter from Mr. Rossiter, with the following account of her progress:

"For the next five hours after your visit the symptoms underwent little change; but the attacks were rather less

severe and at rather longer intervals. After 10 p.m., however, copious purging commenced, and the convulsions did not recur. Consciousness did not return until the afternoon of the next day. I need hardly add, the Wednesday and part of Thursday remain a complete blank. Since then, the breasts have become slightly enlarged, but are now subsiding. The lochia have been very scanty and irregular. The temperature ranges from normal to 100°. But unfortunately the amount of albumen is on the increase to-night—about one-half. I am dry-cupping the loins, purging moderately, and giving mild diaphoretics."

I did not hear from Mr. Rossiter again until September 19th (exactly a month after delivery). In his letter he told me that Mrs. H. was then "quite convalescent, coming down to breakfast and driving about daily." He also added: "Since I last reported the albuminuria has steadily diminished from one-half to a decided trace only. There has been a great deal of pus and mucus, and some blood, but no discoverable casts; and the occurrence of vesical irritation with it, makes me think that a good deal of this was from cystitis. During the whole of the second week the temperature, which had previously been nearly normal, ranged from 101° to 102°, possibly from the above cause."

On reviewing the history of this case, it will be observed that the first fit came on the day after delivery, that it was a violent one, and that after it the patient lay in an unconscious state with dilated pupils and stertorous breathing. Some leeches were applied to the temples, and by this means about ℥iij. of blood were obtained. ʒi. of bromide of potassium was given in four doses, as well as a dose of calomel and jalap, and one drop of croton oil. Yet, notwithstanding these measures, the fits recurred—at

first every hour, and then more frequently. I arrived about 4 p.m., and, after a consultation with the medical men in attendance, bled her to ℥xvj. The pulse, which before this was hard and bounding, became softer and quicker, and the countenance, which was before very flushed, became paler; and she began to show slight signs of consciousness. She remained in this condition for about five hours; but the attacks were less severe and at longer intervals until about 10 p.m., when copious purging commenced, and after this the convulsions did not recur; but yet complete consciousness did not return until the next day. From all this it appears that the improvement in the symptoms commenced immediately after the bleeding, and was completed by the copious purging which subsequently ensued. This case is only one out of many others which I have published from time to time, in order to prove the efficacy of venesection in puerperal convulsions, and thus to rescue, if possible, from unmerited oblivion a most valuable but, in the present day, most unaccountably neglected remedy.

NOTE.—Since writing this paper my attention has been called to an article in the *British Medical Journal*, January 31st, 1891, called the "Revival of Venesection," referring to a valuable paper by Dr. Pye-Smith of Guy's Hospital, which was discussed at the last meeting of the Royal Medical and Chirurgical Society of London. Dr. Pye-Smith's conclusions (which were very favourable to venesection) were based on a record of fifty cases of various diseases in which bleeding had been resorted to with advantage. It is, therefore, very gratifying to find that I am not alone in my attempts to rescue so important a remedy from oblivion.

No.	Name and Residence.	Date of Attack.	Original Attendant.	Consultant.	Whether fits came on before, during or after labour.	Whether Multipara or Primipara.	Presentation.
	Sarah Higgs, Eugene Street	1841.	Dr. Swayne (when a pupil)	Mr. Swayne, Sen., Lecturer on Midwifery	During	Multip.	Vertex
2	Mary Tilman, Albion Row, Bedminster	1842.	Do.	Do.	During	Primip.	Feet
3	Not stated	1843.	Mr. Bridges (a pupil)	Dr. Swayne	During	Multip.	Twins—Both vertex
4	Mrs. Leaver, Hotwells	1847.	Mr. Wheeler	Dr. Swayne	During	Primip. æt. 30.	Vertex
5	Not stated	1849.	Mr. Taylor (pupil)	Dr. Swayne Lecturer on Midwifery	After	Primip.	Vertex
6	Mrs. Hodge, Jacob's Wells	1849.	Dr. Swayne	None	During	Multip.	Vertex
7	Mrs. Jefferies, Stokes Croft	1850.	Dr. Herapath	Dr. Swayne	During	Primip.	Vertex
8	Mrs. G., Somerset Sq.	1853.	Mr. Godfrey	Dr. Swayne	During	Primip.	Vertex
9	Martha M., Cox's Buildings, St. Philip's	June 28th, 1854.	Mr. Corbould	Dr. Swayne	Before In 8th Month	Primip.	No dilatation of os uteri
10	Jane Fussell, Temple Street	Mar. 13th, 1856.	Mr. Biggs (pupil)	Dr. Swayne	During	Primip. æt. 19.	Vertex
11	Mrs. — Old Market St.	Dec. 4th, 1856.	Mr. Coe	Dr. Swayne	During	Primip.	Vertex
12	Mrs. B., Buckingham Vale	Sept. 4th, 1861.	Mr. Parker	Dr. Swayne	During	Primip. æt. 30.	Vertex

No.	Result to Mother.	Result to Child.	State of Urine.	Period of Attack and Duration of Convulsions.	Treatment, &c.
1	Recovered	Lived	Not stated	Convulsions came on with the last pains; ceased within a fortnight.	Venesection to ounces xx. Head shaved, and cold applied; Enemata of turpentine, castor oil and assafœtida.
2	Recovered	Died convulsed after 2 hours	Do.	The fits came on when the os uteri was the size of a shilling.	V.S. to ounces xxx. Only two fits after venesection. Purgatives and antispasmodics given. Delivery hastened.
3	Recovered	Lived Lived	Do.	Fits came on just before delivery, and ceased within 24 hours.	*Post partum* hemorrhage, and therefore no V.S. Purgatives and antispasmodics given.
4	Recovered	Dead (putrid)	Do.	Convulsions lasted 12 hours; ceased after delivery.	V.S. to ounces xx. Croton oil 1 drop, calomel gr. x. (before I arrived). Enema terebinth. and ol. ricini. Delivery by short forceps.
5	Recovered	Lived	Do.	Convulsions came on 6 hours after delivery; lasted some hours.	V.S. to ounces xxiv. Calomel and jalap, castor oil and turpentine; cold to head, enema and antispasmodics.
6	Recovered	Lived	Do.	Convulsions came on during first stage; nearly ceased in second. Two or three fits after labour.	No V.S. on account of her low, bloodless condition. Ammonia and antispasmodics given.
7	Recovered	Dead	Do.	Fits came on early in first stage, with complete insensibility between.	V.S. to ounces xij. Purgatives. Delivery by craniotomy, because os uteri was not dilated enough for forceps.
8	Recovered	Lived	Do.	Fits came on late in second stage; ceased after delivery.	V.S. to ounces xx. Short forceps used.
9	Died (No P.M.E.)	Died	Do.	No sign of labour; convulsions lasted 19 hours.	V.S. to ounces xx. Twelve leeches to temples; cold to head; enema of turpentine and castor oil; 1 drop of croton oil.
10	Recovered	Dead	Do.	Convulsions came on near end of labour, and lasted more than 24 hours.	V.S. to ounces xvj. Head shaved; cold applied. Sinapisms to legs; purgatives, enema, and blisters to back of neck.
11	Recovered	Lived	Do.	Fits came on early in first stage; ceased after delivery.	V.S. to ounces xxx. Purgatives. Delivery with forceps.
12	Recovered	Lived	Highly albuminous s.g. 1015	Fits occurred in the second stage; only one soon after delivery.	V.S. to ounces xvj. Cold to head; purgatives; blister to back of neck. Delivery with forceps.

No.	Name and Residence.	Date of Attack.	Original Attendant.	Consultant.	Whether the fits came on before, during or after labour.	Whether Multipara or Primipara.	Presentation.
13	Mrs. — Cumberland House, Hotwells	Feb. 1st, 1862.	Mr. Crichton	Dr. Swayne	During	Primip.	Face
14	Mrs. H., Stapleton Road	Feb. 8th, 1863.	Mr. Mayor	Dr. Swayne	After	Multip.	Twins—Vertex Breech
15	Mrs. T., Keynsham	Oct. 13th, 1863.	Mr. Hutchins	Dr. Swayne	Before In 7th Month	Primip. æt. 20.	Vertex
16	Mrs. P., Cotham Park	Dec. 1st, 1865.	Mr. Sheppard	Dr Swayne	During	Primip.	Brow
17	Mrs. W., Whiteladies Road	Feb. 10th, 1868.	Dr. T. E. Clark	Dr. Swayne	During	Multip.	Vertex
18	Mrs. — Jacob's Wells	Jan. 8th, 1862.	Mr. Sawer	Dr. Swayne	During	Multip.	Vertex
19	Mrs. J., West Street, Bristol	Feb. 13th, 1869.	Mr. Willett	Dr. Swayne	Before Early in 7th Month	Primip. æt. 32.	Vertex
20	Mrs. H., 2 Catherine Place	Mar. 5th, 1870.	Mr. J. R. Lansdown	Dr. Swayne	Before End of 7th Month	Primip. æt. 19.	Not stated
21	Mrs. H., Sydenham Hill	Oct. 26th, 1870.	Mr. Taylor	Dr. Swayne	During	Primip.	Twins—Vertex Foot
22	Mrs. R., Bread Street	Mar. 26th, 1871.	Mr. Wine	Dr. Swayne	During	Multip. æt. 25.	Not stated
23	Mrs. S., Glo'ster Street, Mall	Aug. 28th, 1872.	Mr. Baretti	Dr. Swayne	Before End of 8th Month	Primip. æt. 38.	Vertex
24	Mrs. C., Bedminster	May 28th, 1874.	Mr. Keall	Dr. Swayne	Before In 8th Month	Multip.	Not stated

No.	Result to Mother.	Result to Child.	State of Urine.	Period of Attack and Duration of Convulsions.	Treatment, &c.
13	Recovered	Lived	60 per cent. of albumen	Three fits before delivery (which was natural); convulsions worse after; they lasted 18 hours.	Before labour cold to head and sinapisms to legs. After V.S. to ounces xvj., calomel gr. v., jalap 1 scruple; blisters to nape of neck.
14	Recovered	Lived Lived	30 per cent. of albumen	Fits came on 14 hours after delivery, and lasted about two days.	Tinct. opii m. xl. (before my arrival). V.S. to ounces xiv. Calomel and jalap āā gr. v.; enema terebinth.; cold to head; blister to nape of neck.
15	Died	Dead for some hours	50 per cent. of albumen	Convulsions lasted nearly two days; beginning some hours before labour.	V.S. to ounces xiv. Chloroform during fits. Enema terebinth.; cold to head; blister to nape of neck.
16	Recovered	Dead	One-sixth albumen	Fits began with second stage; worse after delivery; better after bleeding.	Cold to head, calomel gr. v., enema terebinth c. ol. ricini (before I arrived). V.S. to ounces xij. (after delivery); blister and sinapisms. Delivery by turning.
17	Died on third day	Dead	Very albuminous	Convulsions came on early in first stage; ceased after delivery.	Seven leeches to temples; chloroform during fits; dilatation of os uteri. She died from suppression of urine.
18	Died same night	Dead	Not stated	Convulsions came on early in second stage; none after delivery.	V.S. to ounces xv. Cold to head; purgatives. She died some hours after delivery.
19	Recovered	Dead	Nearly solid from albumen	Anasarca one month before fits, which occurred in 7th month and lasted about 8 hours. Only one after last V.S.	Purge of calomel and jalap, sinapisms and diuretics (before my arrival). V.S. to ounces xvj. After seven hours V.S. to ounces xvj., blisters to loins, chloroform. Delivery naturally on Feb. 16th.
20	Died next day	Dead	Not stated	There were 26 fits in 15 hours; none after V.S.	V.S. to ounces xiv. Cold to head; turpentine enemata, sinapisms. Delivery not attempted, as there was no sign of labour.
21	Recovered	Lived Lived	Albuminuria 3 weeks before attack	Fits began early in labour, and went on for 12 hours; there were none after chloral enema.	Purge of calomel and jalap, and sinapisms (before I arrived). V.S. to ounces xiv., followed by enema of chloral gr. xxx. Some *post partum* hemorrhage.
22	Recovered	Dead	Almost solid from albumen	Fits began with first stage—about one every hour; worse and more numerous after. Lasted three days.	Calomel gr. iij. (before my arrival); enema of chloral gr. xxx. V.S. to ounces xij., March 27th. Chloral 1 drachm in two doses.
23	Died on 20th May (No P.M.E.)	Dead	Very albuminous	Thirty fits before I saw her. No signs of labour. Forty after; lasted two days. Aphasia and dysphagia.	Turpentine enema, and sinapisms (before my arrival) V.S. to ounces xviij. Delivery by podalic version. Chloroform for some hours after.
24	Recovered	Dead	Very albuminous	Only two convulsions early in the labour.	Cold to head, warmth to feet, sinapisms; enema of turpentine and castor oil.

No.	Name and Residence.	Date of Attack.	Original Attendant.	Consultant.	Whether fits came on before, during or after labour.	Whether Mutlipara or Primipara.	Presentation.
25	Mrs. W., Stanley Villa, West Park	5 a.m., June 17th, 1874.	Dr. Swayne	Mr. Leonard	Before In 9th Month	Multip. æt. 25.	Vertex
26	Mrs. C., York Road, Montpelier	4 a.m., Feb. 10th, 1875.	Mr. Phelps	Dr. Swayne	Before In 9th Month	Primip. æt. 27.	Vertex
27	Mrs. B., Queen's Parade	Sept., 1876.	Mr. Lansdown	Dr. Swayne	Before In 7th and 8th Months	Primip. æt. 28.	Vertex
28	Mrs. M., Stapleton Road	10 p.m., Sept. 30th, 1877.	Mr. Stevens	Dr. Swayne	Before In 9th Month	Primip.	Vertex
29	Mrs. R., Campbell Street, City Road	2 a.m., Oct. 6th, 1877.	Mr. Challacombe	Dr. Swayne	Before In 9th Month	Primip. æt. 18.	Vertex
30	Mrs. L., Southampton Buildings	Dec. 9th, 1877.	Mr. Baretti	Dr. Swayne	During Very early	Multip.	Vertex
31	Mrs. R., 33 Fernbank Road	April 17th, 1880.	Mr. Lansdown	Dr. Swayne	During	Multip.	Face
32	Mrs. D., 28 Hampton Park	Sep. 19th, 1880.	Mr. S. H. Swayne	Dr. Swayne	During Just before delivery	Primip.	Vertex
33	Mrs. M., Berkeley	Nov. 8th, 1880.	Mr. Bridgeman	Dr. Swayne	After About 8 hours after delivery	Multip.	Not stated
34	Mrs. G., 17 Upper Belgrave Road	Nov. 12th, 1884.	Dr. Swayne	None	After About 2 hours after delivery	Primip.	Vertex
35	Mrs. B., Barton Hill	June 27th, 1888.	Mr. Baxter	Dr. Swayne	During	Multip.	Not stated
36	Mrs. H., Weston-s.-Mare	9 a.m., Aug. 20th, 1890.	Mr. Rossiter	Dr. Fraser Dr. Swayne	After 26 hours after labour	Primip. æt. 37.	Not stated

No.	Result to Mother.	Result to Child.	State of Urine.	Period of Attack and Duration of Convulsions.	Treatment, &c.
25	Died twelve hours after attack	Died	Slightly albuminous	No sign of labour before convulsions, which lasted 12 hours.	Purgatives, both draughts and enema. Chloral gr. xxx. Cessation of fits for thi hours. Chloral repeated. Os uteri t rigid for turning. Delivery by cranioton
26	Recovered	Dead for some hours	Half solid from albumen	Fits lasted from 4 a.m. to 5 p.m.; there were 18 in 13 hours.	Free purging, cold to head, and sinapis (before my arrival). V.S. to ounces Kept under chloroform for 7 hours. more fits. Rigid os notched. Deliv by forceps.
27	Recovered	Lived	Albumen about 50 per cent.	Duration of fits uncertain.	V.S. to ounces xij. No fits after. On C 8th scarcely a trace of albumen. Favo able confinement on Nov. 4th.
28	Recovered	Dead for some hours	Very albuminous	Duration of fits about 30 hours.	Chloral gr. xxx. and potass. bromid. 1 d 4tis horis (before my arrival). V.S. ounces xxx., with great benefit. livery with forceps.
29	Died on third day	Lived	Two-thirds albumen	Attacks began before labour, and lasted about 36 hours.	Chloroform inhalation (before I arrive Hydrate of chloral gr. xl. by enema; blis to nape of neck. Delivery by sh forceps.
30	Recovered	Lived	Nearly half albumen	Fits went on for nearly three days.	Two 1-scruple doses of bromid. potass. (fore I arrived). Delivery natural. A delivery, calomel gr. iij., black draug and enema terebinth. Cold to he Enema of chloral gr. xxx.
31	Died soon after delivery	Dead	Albumen about five-sixths of whole	Fits lasted about 8 hours.	Tinct. opii m. xv., and V.S. to ounces (before I arrived). Blisters behind e and sinapisms to calves.
32	Died on second day	Lived	Highly albuminous	Duration of fits uncertain.	V.S. to ounces v. (before I arrived), a chloroform. Enema of chloral gr. enema of turpentine and castor oil.
33	Recovered	Lived	Very albuminous	Fits lasted 15 hours.	V.S. to ounces xvj. Had taken twice xxx. of chloral and gr. xv. of bromide fore I arrived. To continue bromi Enema terebinth.; blister to neck.
34	Recovered	Lived	Albumen about one-third	Only one convulsion, 2 hours after delivery.	Chloral hyd. 1 dr. and potass. bromid. gr.
35	Died of measles a fortnight after delivery	Dead	Highly albuminous	Fits lasted 11 hours; there were six during labour.	Cold to head; sinapisms to calves of le enema.
36	Recovered	Lived	Albumen one-fifth	Convulsions lasted 11 hours.	Leeches to temples; 3 oz. of blood thus tained. Calomel and jalap, croton o drop, four doses of bromide (before arrived). V.S. to ounces xvj. Chlo 1 scruple with bromide gr. xv.

CASE OF POISONING BY RHUS VENENATA.

BY

ARTHUR W. PRICHARD, M.R.C.S.,

Surgeon to the Bristol Royal Infirmary.

THE following case is worthy of record, on account of its rarity in this country. It is one of a serious attack of a kind of erysipelas induced by direct poison from contact with the juice of a tree called *Rhus venenata*, or "Swamp Sumach." The attack was such as I have never witnessed nor seen described in medical books. It was very severe, endangering the patient's life, and peculiar in the great disfigurement and sickening effluvium it produced. Before giving the details of the case, I will state in a few words what I have found out from botanical works and other sources about the tree.

Rhus venenata, belonging to the natural order *Anacardiaceæ*, is a native of North America and Canada. It is a tall-growing shrub, 15 or 20 feet high, with beautiful shining pinnate leaves, composed of 11 or 13 leaflets. The decaying leaves turn an intense red or purple, and for the beauty of its autumn tints the plant is worthy of cultivation; but care should be taken to prevent its being carelessly handled. There are 85 species of the genus Rhus, all more or less poisonous, and one of the most poisonous is the *Rhus venenata*. According to Gray's *Supplement to the Pharmacopœia*, 1847, the juice, or even air impregnated with the volatile principle of this plant, is to many persons a serious poison, producing severe and

dangerous erysipelatous swellings. Khan mentions a person who by the simple exhalation was swollen to such a degree that he was as stiff as a log of wood, and could only be turned about in sheets. Some constitutions are, however, but slightly or not at all affected by it. Another authority, in the *Arboretum Britannicum*, says that the milky juice stains dark brown, and is poisonous to those who touch or smell it. In forty-eight hours inflammation appears on the skin in large blisters, principally on the extremities, attended with burning and swelling; in two or three days the eruptions suppurate. Some persons are incapable of being poisoned by it, but those who are of unstable habits are more likely to receive it. The eyes sometimes are specially affected. Japan varnish is made from the juice of this, and of one or two other species of this family; the juice being transparent at first, but becoming black on exposure to light and air.

For giving me the opportunity of seeing this case I am indebted to Mr. John Adye of Bradford-on-Avon, under whose treatment the patient made a good recovery, and who from the first recognised the cause of the attack, and who has kept careful daily notes of the whole case. The history is as follows: Mr. X., æt. 25, a curate, having his study overshadowed by a fine specimen of the tree growing in the vicarage gardens, was persuaded to cut it down. Hearing that a gardener, three years before, had suffered from blood-poisoning after cutting off a limb from the same tree, he started on the work with a certain amount of misgiving. He procured the help of the same gardener who had experienced evil effects before. After the first afternoon's work the gardener fell ill, next day suffering from an attack of erysipelas which kept him ill for a week. Mr. X. worked at the tree a short time every

day for a week, at the end of which time the tree came down. He noticed that the sap, which was very profuse, made his hands black, and he subsequently wore gloves. On October 23rd some of the juice touched his face, and he wiped it off with his gloved hand. On October 24th he had three lines of redness on his cheek, which developed in two or three days' time into an attack of facial erysipelas, and this grew persistently, but not rapidly, worse. On October 30th he was so ill that he had to keep his bed: the arms, genitals, and thighs were attacked, first by a red rash, then bullæ appeared, suppurated, and burst, and large crusts formed, the exudation from under them being very profuse. His ability to take nourishment remained fairly good, and his strength kept up. The temperature never reached 103°, and his pulse did not exceed 112. The bowels were very obstinate, requiring strong purgatives before they acted; and the urine was very scanty, but not albuminous.

On the 5th of November, when I saw him, he was lying in bed with the whole of his face, throat, and neck a mass of black scabs, some of which were partly loosened by the copious purulent exudation underneath them; he was unable to see on account of the stiffness of his closed lids, and unable to masticate from the same condition of his cheeks. He could protrude the tip of his tongue, which was moist; he could swallow, and he could speak. On raising the lids, pus poured from his eyes; the conjunctivæ were swollen, but the corneæ bright and the sight good. The forearms and hands, the front and inside of the thighs, and the lower part of the abdomen were in somewhat the same condition as his face, covered with large crusts surrounded by a pink rash; but the crusts were not so black as on his face. The genitals were much

swollen. The effluvium emitted by the patient was foul and peculiar. He was thirsty; but his mind was very clear. He was very querulous, complaining most of the itching of his eyes, or the burning of his skin; but he was able to sleep.

This was the day after his worst day. During the next week he slowly improved, the crusts softened and came off—those on his face last—and the conjunctivitis lessened. He was able to sit up on the 9th, and, except for the painful complication of a whitlow, he made an uninterruptedly good recovery. By the 16th he was convalescent: his eyes had ceased to discharge, he was able to read and to walk, his face and arms were peeling, and there was no pitting; the moustache had to be shaved off, as it was impossible to free it from scabs; and a fortnight later he went away for a change.

The treatment throughout the case was tonic and antiseptic. The patient, fortunately, could digest well right through his illness, and he was kept up by sustaining nutriment, stimulants, and large doses of tincture of perchloride of iron. Strong aperients had to be given when necessary; and the local applications consisted of eucalyptol, iodoform and oil, and poultices to the scabs. The eyes were treated with boracic acid lotion.

There are one or two remarks I will make about the case.

In the early part of the paper I used the expression "endangering the patient's life." I believe that to most other people such an attack would be a source of very grave danger, as at one time (Nov. 4th) such a large surface was suppurating, and the pus so profuse and, notwithstanding disinfectant applications, so fetid. He was a very robust man, and I believe he owes his life to

the healthy condition of his digestive organs, which enabled him to absorb sufficient food and medicine to overcome the effects of the unwholesome surroundings in which he had to lie.

The observations of the older writers about this plant, with regard to the susceptibility of the poison by individuals, are borne out in this case by the fact that this gentleman and the gardener were the only two who were affected by the poison, although the tree was close to the house and to a tennis-lawn, and although several others joined in the work of cutting it down, or in conversation close by, and were not influenced by the poison. Mr. X. observed to me that he had always been prone to catch any illness very readily.

The specific action of the virus in the system was shown, in my opinion, by the blackness of the scabs on the parts exposed to light and air, and the varnish-like smell of the exudation, and the diminished fluid excretions, due probably to the extreme astringency of the poison.

However this may be, the rumour that the tree was so poisonous has had such an effect in the neighbourhood, that no person can be found brave enough to touch it; and there the tree lies on the vicarage lawn at Bradford, awaiting cremation when it is dry.

A CASE OF LARYNGEAL TUBERCULOSIS.

BY

P. WATSON WILLIAMS, M.B. Lond.,

Physician in charge of the Throat Department of the Bristol Royal Infirmary.

ON the 15th of May, 1889, I was asked to see Mrs. H., in consultation with her husband, a medical man, on account of frequent attacks of spasm of the glottis, giving rise to alarming dyspnœa. For five weeks previously she had had constant cough, marked salivation, severe pain in the pharynx during rest, but more severe on swallowing. The cough was worse on lying down at night, and frequently ended in vomiting, causing some loss of flesh. The soft palate was relaxed and hyperæmic, the uvula elongated without hypertrophy. The larynx was extremely hyperæmic (see Fig. I.), and there was slight general swelling of the mucous membrane. There was expectoration of clear bronchial mucus, and a few râles could be heard over the back and front of the chest. The right apex was somewhat dull on percussion, with expiratory breath-sounds prolonged and harsh. She was seven months pregnant. There was a family history of tuberculosis.

The elongated uvula was evidently the cause of the laryngeal spasms, and sufficiently accounted for all the symptoms and physical signs, except, perhaps, the well-marked salivation, which I attributed to her pregnant condition.

The elongated portion of the uvula was removed, the usual directions with regard to iced and fluid food being given, and we ordered a tonic.

As Mrs. H. resided in the country, about fifty miles by rail from Bristol, I did not see her again till May 22nd, when I found she had been greatly relieved. The attacks of dyspnœa and vomiting had not once recurred, and the pain was very much less severe. The larynx, however, was as red and injected as on my first interview.

I next saw her on June 5th. The pain on swallowing was as bad as ever, although the vomiting and glottic spasms had not recurred.

Examination of the larynx showed some thickening of the left margin of the epiglottis, also of the left ary-epiglottic fold and left false cord, and in these positions a few isolated tubercles had appeared. (See Fig. II.) The vocal cords were movable on phonation; the voice husky. She had a rapid, feeble pulse, and a hectic temperature chart. I had no hesitation in diagnosing laryngeal tuberculosis, and had the painful duty of conveying to the husband my opinion of the extreme gravity of the case, and advised the induction of premature labour at the eighth month. The frequent use of a local application by spray and brush of a solution of biniodide of mercury, 1 in 1000, was ordered, and the administration of creasote and cod-liver oil internally.

On July 8th, the larynx was typically tubercular (see Fig. III.), the epiglottis much thickened and pale, the right and left ary-epiglottic folds characteristically pale, tumid, and pear-shaped, the isolated tubercles having coalesced; no ulceration. There was also a small tubercle in the left anterior pillar of the fauces. The voice had become quite aphonic, and talking as well as swallowing was

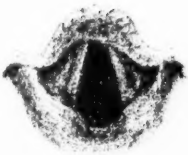

Fig. I.

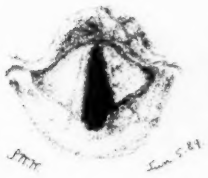

Fig. II.

Fig. III.

Fig. IV.

DR. WATSON WILLIAMS' CASE OF LARYNGEAL TUBERCULOSIS.

painful. The child had been born ten days. At the husband's request, I asked Mr. Mark Hovell to come down and see the patient. He confirmed my diagnosis, and pronounced the case to be practically hopeless, but suggested the use of a spray of 20 per cent. of lactic acid, to be gradually increased in strength. This was used once or twice, but induced so much vomiting and glottic spasm that, after reducing the strength of the lactic acid to 10 per cent. with similar results, the husband gave it up, and reverted to the biniodide of mercury treatment.

July 24th. As the use of lactic acid had proved so impossible, I increased the strength of the biniodide of mercury to 1 in 250, and advised inhalation of conium and creasote. By this time the tubercular deposits in the left ary-epiglottic fold had ulcerated. The patient was rapidly losing flesh, the expectoration was muco-purulent, and numerous bacilli were present.

The husband, in despair, soon after this took his wife to Sir Morell Mackenzie, hoping that there might be some error in diagnosis; but his opinion only confirmed the gloomy outlook. Returning home, the biniodide spray and local applications with the brush were steadily continued, in combination with various tonics.

I saw the patient from time to time, at intervals of about a month, and in November and December there was evidence of improvement in the condition of the larynx. By January 24th, 1890, there was no pain in her throat at all, not even on swallowing. The cough had quite gone. The voice had quite returned, but was a little thick. The patient suffered from great mental depression, but had improved in general appearance very much. The right apex no longer dull on percussion; no harsh breathing, but expiration was somewhat prolonged. All

the tubercular deposit had been absorbed; the ulceration had never been extensive—in fact, at any time was only observable in the left ary-epiglottic fold. The mucous membrane of the epiglottis and ary-epiglottic folds was still a little thickened and hyperæmic, but only to a very slight degree. The vocal cords normal in colour, and freely movable.

Within a month the larynx became perfectly normal (see Fig. IV.), and when I saw her nine months later, on October 10th, the larynx was still perfectly normal in every respect. The patient had been improving all round, and had gained flesh. She had so far recovered her strength in the earlier months of the year that she had herself nursed her husband through an attack of the Russian influenza, so prevalent at that time. The right apex of the lung never quite cleared up.

Recovery after the occurrence of such very extensive tubercular disease of the larynx is almost phenomenal, and exceeded our most sanguine expectations. When I told my friend Mr. Hovell of the happy result obtained he was much astonished, remarking that he had never seen such an advanced case of laryngeal tuberculosis recover.

The only local therapeutic treatment was the application of the 1 in 250 solution of biniodide of mercury, persisted in for months. The fact of the patient residing at such a distance from Bristol fortunately prevented my adopting more radical procedures; and Mr. Hovell's suggestions were doubtless limited for the same reason.

I have treated two other cases of advanced laryngeal tuberculosis by this method, and although it has relieved the conditions to a certain extent, neither of them recovered. But they were both very advanced before I saw them, and the lungs in these cases much diseased.

Progress of the Medical Sciences.

MEDICINE.

Although it is impossible at present with the data at our disposal, and in the short interval of time that has elapsed since Koch gave his discovery to the world, to form an accurate judgment of its ultimate value, there has been a certain amount of experience accumulated which is of value to guide us in the further use of the remedy and to indicate the ways in which, by further research, we may hope that the advantages attending its use may be increased and the drawbacks lessened. The exact constitution of this so-called "tuberculin" is uncertain, and must remain so until Koch publishes in greater detail the mode of preparation. He states that it is a derivative of albuminous bodies, and is in close relation to them, but that it does not belong to the group of bodies known as toxalbumins. As to its mode of action, it contains a certain amount of a necrosis-producing substance formed during the life-activity of the tubercle bacillus; and this substance, injected in minute quantity, excites in tuberculous subjects a more or less extensive necrosis of cells wherever the tubercle-bacilli vegetate, and have already impregnated their surroundings with the necrosis-producing body. Accompanying these local changes are general symptoms affecting the entire organism, consisting of fever and the complex of symptoms known as the "reaction."[1] This reaction is in fact an acute specific fever of short duration excited by the injection of tuberculin.

As for the local effect, it falls only indirectly on the bacillus itself by interfering with, or altogether preventing, its nutrition. Briefly, in a focus of tubercle a central area of necrosis is produced, surrounded by a zone of intense hyperæmia. In the case of ulcers (larynx and intestine), instead of a greyish base with swollen and red edges, they show a surface covered with recent very vascular granulations. The tuberculous are thus transformed into simple ulcers.[2] In the lung it seems

[1] *Brit. Med. Journ.*, Jan. 17, 1891.

[2] Jürgens, *Wiener med. Woch.*, Jan. 3, 1891.

likely that, if these are extensively diseased, caseous hepatisation may occur throughout whole lobes. The grave question has been raised by Prof. Virchow as to whether there was not a fresh development of miliary or submiliary tubercles in distant parts in some patients who had died whilst under treatment. His latest views on the effect of the remedy are, that up to the present we have no evidence that the bacilli as such are killed and re-absorbed; that the tubercle, as well as the irritable tissue, the inflammatory tissue around it, is brought to a speedy destruction by the treatment, thus favouring the possibility of a comparatively rapid healing process. On the other hand, there is no evidence that indurative processes are favourably influenced, or that encapsulation is favoured; rather, suspicion sometimes arises that the remedy mobilises encapsuled masses, brings them into movement, and thus transforms a focus of disease, which might possibly have continued to be harmless, into an actual danger for the patient.[1]

So far as present experience goes, the defects of the remedy arise in some cases from the violence of the local, in others of the general, reaction. In the first place, in deep-seated organs the necrosed material, if in any large amount, cannot at once be discharged, and there is a quantity of *detritus* which can only be removed by a long and exhausting process of suppuration. In certain situations, again, the intensity of the hyperæmia of the tissues surrounding the tubercles is a source of danger, as in the case of the boy reported in Virchow's first paper,[2] in which an extraordinary degree of hyperæmia of the pia mater was excited by the injections. In the larynx a condition resembling œdema glottidis may supervene; or again in the intestine, in the course of the secondary changes taking place around a tuberculous ulcer, the necrotic process may extend to the serous coat and result in perforation, as in a case mentioned by Dr. B. Fraenkel. On the other hand, danger may arise from the intensity of the general reaction, which seems to vary in a way which cannot be foreseen, and is at present unexplained. In one frequently quoted case, that of a girl *æt.* 17, suffering from lupus, death followed 36 hours after an injection of ·002 gr.

The fever may be attended by albuminuria, tumefaction of the spleen, and even myocarditis or hæmaturia. A severe general reaction is not necessarily accompanied by a corresponding intensity of the local effects; and this inadequacy of

[1] *Brit. Med. Journ.*, Feb. 21, 1891, p. 434.
[2] *Brit. Med. Journ.*, Jan. 17, 1891.

the local effect, whilst the general disturbance is severe, must be accounted one of the defects of the remedy.

Sometimes the obstacle to success lies in another direction—namely, the establishment of tolerance and consequent exhaustion of the action of the remedy before the cure is effected: sometimes even, as the results of autopsies have shown, the necrotic process does not occur, even large tubercles remaining refractory. There appears to be no doubt that the injections may occasionally have a disastrous effect by rousing into fresh activity old quiescent lesions, whose presence had clinically been previously unsuspected. The statement of Liebmann that he had found bacilli in the blood during the reaction period has not been confirmed by other observers. The many observations that have been made on the sputum in pulmonary phthisis show that at first both the quantity of sputum and the number of bacilli it contains are increased. The bacilli may be considerably altered, the rods being broken down and irregular in shape, whilst they often do not retain the stain in the presence of acids so well as usual, and may show a tendency to occur in groups or masses. In a considerable proportion of cases the amount of elastic tissue is increased. These changes connote the active disintegration and discharge of the tuberculous pulmonary tissue. In those cases that do well, the amount of sputum and the number of bacilli subsequently diminish, and in a few the bacilli have altogether disappeared and remained absent, whilst expectoration and cough have ceased.

With regard to the action of tuberculin in pulmonary phthisis, the time has not yet come to speak definitely; but it may be said that on the whole Koch's statements that tuberculin has a specific action on tuberculous tissue, that this action would be available only in cases in the early stage and not in those attended with extensive changes in the lung, have been realised by clinical experience. The effects, however, even in early cases, have, so far, not been so beneficial as he anticipated. It must be remembered that we cannot argue directly from the results of laboratory experiments on animals, the subjects of artificial tuberculosis, to pulmonary tuberculosis in man. Tuberculin, while destroying existing foci of disease, does not appear to be able to protect against future attacks. As Dr. Nixon points out, in artificial tuberculosis the products of the bacillary culture are applied to an acute infectious disease whose course is not affected by predisposing causes. In phthisis, on the other hand, the hereditary taint, the defective assimilation, and diminished vital power of resisting morbid influences must be taken into

account.[1] On exposure to fresh sources of infection, such patients may, after cure, be again liable to contract the disease; and, moreover, if after the treatment some bacilli remained behind undestroyed—a by no means improbable case—these might be roused into fresh activity if the patient were subsequently placed under conditions favourable to their development. These are two of the limitations to complete success. There is another danger from the tendency of the necrosing tissue from the upper parts of the lung, if not rapidly expectorated, to gravitate into the lower lobes and thus infect parts of the lung not previously attacked. That this may occur is shown by the reports of cases in which signs of mischief were first observed over the bases of the lungs after injection, and by the extensive caseous hepatisation found *post mortem* by Virchow.

The best results in phthisis may be anticipated in early cases when the consolidated areas are just beginning to soften. Cases of advancing phthisis with formation of cavities do not do so well. As a certain percentage of moderately severe cases grow worse under the treatment, patients of this class should be warned of the dangers to which it may possibly expose them.[2]

In reading the reports one sees that hæmoptysis has occurred with some frequency after the injections, as would be expected, knowing the inflammatory condition of the tissues surrounding the tubercular foci, produced by the action of the remedy. Prof. Fraenkel states, and analysis of the reported cases from all sources appears to confirm this statement, that improvement in the general condition of the patient results in from 40 to 50 per cent.—taking only those cases that have been a sufficient time under treatment and are in an early stage of the disease,—but that it is doubtful whether this improvement is greater than follows in the same class of cases under the ordinary tonic, dietetic, and antiseptic regimen.

Careful selection of patients is essential; and since the intensity of the general reaction is most uncertain and cannot be foreseen, varying apparently according to individual idiosyncrasy, it is well to begin with a very small dose—$\frac{1}{2}$ to 1 milligramme. The treatment should not be attempted in advanced or bad cases of phthisis; and other contra-indications are, the presence of symptoms pointing to intra-cranial tuberculosis, extensive pleuritic effusion, nephritis, and tubercular disease of the intestines. For the rest, there seems to

[1] *Brit. Med. Journ.*, Feb. 14, 1891, p. 357.

[2] Prof. A. Fraenkel, *Brit. Med. Journ.*, Feb. 21, 1891, p. 434.

be little risk if the cases are judiciously selected, the initial dose employed a small one, its effect carefully watched, and the dose gradually increased. The improvement that has resulted in many patients is certainly very remarkable and of good augury for the future.

The results in the treatment of lupus are not so encouraging as at first reported, good authorities having stated that tuberculin does not attack the true lupus tissue, and that in spite of great improvement at first, recrudescence of the disease may take place later. Prof. Koehler thinks that when the lupus is not quite superficial the throwing off of the necrosed tissue is prevented by the cutis, which remains intact; the injections, therefore, require following up by scraping with a sharp spoon. He gives one case—the most successful hitherto—in which the lupus tissue was superficial. After treatment by injection only, the lupus has completely disappeared, and the diseased areas are covered by healthy skin with excretory ducts and a growth of lanugo. The combination of injections with scraping seems to promise better results in a shorter time than have hitherto been obtained by other remedies.

Whether tuberculin will come into any extensive use as a diagnostic agent in obscure and difficult cases seems doubtful, in view of the severe effects that sometimes result from a dose of sufficient strength for diagnostic purposes. Whatever may be the immediate results of the first trial of "tuberculin," there can be only one opinion as to the great importance of Koch's discovery, which promises to open a new era in medicine, and to pave the way for great advances in a new line of treatment. We may hope that by the light of further experience the deleterious effects of the remedy will be attenuated, if not altogether eliminated, and the beneficial effects intensified and rendered more potent; possibly at no distant date we may be led to the discovery of some substance that will act directly upon the bacilli themselves.

J. Michell Clarke.

SURGERY.

A surgical operation is, after all, a therapeutic measure, and we cannot too strongly or too often insist on this fact.

Some surgeons seem to regard an operation merely as an anatomical exercise to be pursued after set methods, and described in skeleton in parallel columns. We mistrust operations after set methods. It may be taken for granted

that any list of a hundred examples of the radical cure of hernia, after the method of Snooks, contains at least ten examples of bad surgery, and twenty more of a surgery that is not the very best. And we have no love for lists of operations arranged as statistics, in which one column contains the initials of the patient, another the age, another the date of operation, another the practitioner who sent the patient, and the last column of all one or other of the letters "R." and "D." From such a table containing the items proving that Mr. Stubbs has five hundred times removed the vermiform appendix, we can infer nothing beyond the probability that at least one hundred of these operations were pure mutilations. It is as if a man provided us with five hundred examples of the administration of one ounce of castor oil, the final results being tabulated as "S." success, "F." failure; which being fully interpreted, means that the bowels acted or failed to act. The effects of the drug on the disease are quietly ignored; but we are supposed to infer that the patient is cured.

Some of us refuse to make any such inference. But our enthusiastic table-compilers care nothing for this; for Mr. Snooks is now the most experienced of rupture-curers, and Mr. Stubbs is the leading appendix-vermiform-ectomist of the day. Patients flock to them at their special hospitals—for nearly all such surgeons are specialists—unbeknown to their family doctors. If the poor man with ingrowing toe-nail, who slips away to the "Ingrowing Toe-nail Hospital," ventures to grumble somewhat that the cure consists in complete removal of the big toe, he is solaced by the true statements that he has suffered much and long at the hands of many doctors, and that he is now cured. Yes; but at the expense of the big toe!

There has been a recrudescence of the discussions about removal of the uterine appendages. A young surgeon of unformed reputation and small experience presents a series of cases of the operation larger than surgeons of enormous experience and world-wide reputation could present in the same time. This is the signal for a cry of amazement from many, who want to know where all this mass of disease justifying these operations came from. Some boldly affirm that it did not exist; others, that there was an overdoing of therapeutics, like our amputation of the big toe for ingrowing nail; while the ultra-conservatives affirm that the tedious and unsatisfactory recovery of these cases renders the operation unjustifiable, except in cases where life is undeniably in danger. It is probably the fact that among the most capable

and experienced men the conservative view is gaining ground, and only the most severe cases with palpable and extensive disease are submitted to operation. And from such men, time after time, comes an emphatic protest against the publication of such cases as cured merely because they have recovered from the surgical operation. We add our protest to the others, and with it a warning that if more caution is not observed, an operation which is for many suffering women a beneficent therapeutic measure will become totally discredited.

* * * *

Koch's treatment is now in full swing all over England. Some of us have been experimenting with it for more than three months, and might reasonably have expected to be able to present some definite results. But we have no definite therapeutic results to describe. The time when a case can be said to be cured has not arrived; but we have had cases of recurrence after supposed cure already reported. Mr. Hutchinson, in his address before the post-graduate students, summarises in a conspicuously fair and judicial manner the general feeling with regard to the value of the fluid in lupus—namely, that it is certainly not superior to other methods of treatment, and perhaps inferior to some. And even in this position of modified excellence it is a treatment, in the most careful hands, that is by no means free from danger. The discussions now going on in Berlin help to exhibit the special modes in which the fluid conduces to death; we are not anxious to be presented with such opportunities of *post mortem* study. The discovery by several competent observers of free bacilli in the blood of injected patients suggests an alarming possibility which we do not care to contemplate. The recrudescence of acute tuberculosis after a few months in injected patients would be a terrible commentary on the failure of the most gigantic experiment that has ever been performed on human beings.

It is a thousand pities that Koch's hands were forced in the way that they were forced. Left to his own bent for a year or two more, he, who is most competent to experiment and observe on the matter, might have been able to give us some final and conclusive utterances. But the experiment has gone from the control of the trained expert to the trials of the untrained practitioner, and we cannot say where or when it will end. Koch is on the right path—*rem acu tetigit*, literally as well as metaphorically—it is the fault of this bustling and advertising age that the calm scientist has not been permitted quietly to finish his work.

In the meantime several skilled observers are doing good work at the same subject: Metschnikoff in particular, working in Pasteur's laboratory, has carried out some most valuable researches on the production of immunity to infection by specific micro-organisms, and on phagocytosis. Ruffer has supplemented and extended Metschnikoff's observations by close and painstaking researches on the actual process of phagocytosis during the progress of inflammation.

The process of phagocytosis, or the destruction of micro-organisms by living cells in the body, is one of far-reaching importance to the surgeon. One proof of its existence, in concomitant variation of cause and effect, is suggested if not demonstrated by the fact that the more malignant the micro-organism the more rarely is it found within the phagocyte; and *vice versâ*, the slower the blood-poisoning the more abundantly are the cells found in phagocytes. On these data a theory of immunity has been founded which simply depends on the abundantly proved theory of memory or habit of tissues to react with increasing facility to stimuli. Immunity or refractiveness to inoculation would simply mean that the phagocytes have acquired from practice the habit of destroying bacteria. In this view, the giant cells of tubercle are simply huge multi-nuclear phagocytes. We anxiously await further accounts of these interesting observations.

In this connection it is interesting to note that, according to Fehleisen, quoted by Woodhead in a philosophic article in the last volume of Laboratory Reports, just published by the Edinburgh College of Physicians, erysipelas was in past times undoubtedly used as a curative agent. On lupus in particular the effects of erysipelas as a curative agent have recently not only been noted, but put to a practical test. Woodhead's own experiments show that immunity to one disease might be produced by injection of the germs of another; and, what is more remarkable, by the sterilised fluids got from artificial cultures of these germs. Some observers indeed maintain that the sterilised cultures are more powerful agents in producing immunity than the germs themselves. On the other hand, it has been found that the importation of another microbe to the infection, instead of counteracting the effect of the first, may increase its virulence. Any conclusions drawn from similarity of structure in the micro-organism are as yet impossible; the only fact thus far quoted in this direction is the suggestive one that the bacilli of tuberculosis and of leprosy, phylogenetically related as they are, react similarly to Koch's lymph.

Koch's treatment is not on the lines of these investigations.

It seeks by a deliberate increase of the tubercular toxines to aggravate the local inflammation, if possible, to the extent of necrosis. This is evacuation or elimination, rather than immunity. Time has yet to show in which direction the best practical results are to be attained.

* * * *

Is there any one *best* mode of performing colotomy?

At present the leaning is towards inguinal colotomy, or, as it might with more propriety be called, cœlio-colotomy. Reports of different series of cases operated upon, according to their special methods, by Harrison Cripps, Allingham, Rose, Ball, and others have shown excellent results as regards both immediate mortality and remote effects. The advantages of cœlio-colotomy have been frequently urged, and are now fully appreciated; but it has not all the advantages on its side. We have met with a condition where malignant stricture, low down in the rectum, was associated with enormous distension of the whole colon with liquid fæces and aggravated symptoms of intestinal obstruction, with great weakness of the patient; here lumbar colotomy seemed to be the best operation. Immediate opening was essential; profuse intestinal discharges had to be provided for; and the excessive distension of the gut would severely test any method of fixation in the abdominal wound. Under these and similar circumstances, the old lumbar method has manifest advantages. But, as a general rule, the abdominal method will be the operation of election.

A study of the various modes of performing cœlio-colotomy enables us to eliminate defects and pick out virtues. Most of the defects are errors on the side of excessive caution. A few of these may be indicated. All methods of elaborate suturing are unnecessary. Thus, it is not necessary to suture parietal peritoneum to skin; bowel unites to the open incision just as quickly as to parietal peritoneum, and it is fixed on a firmer foundation without mobile fat under it. Nor is it essential to place more than a very few sutures between the bowel and the parietal opening. Indeed, in what is probably the best of all methods—namely, that of Maydl as modified by Reclus—no sutures at all are essential. The bowel simply rests on a skewer passed through the mesentery and laid on the abdominal walls. The supporting suture of Allingham was a step in this direction; the same principle has been utilised by Rose, only that the supporting sutures are (as the writer suggested two years ago) carried well outwards through the parietal tissues. Nothing keeps the bowel in the wound

so efficiently as this underlying bridge. The advantages of the skewer, protected with antiseptic gauze or lint, are, that its breadth prevents the chance of ulceration of the mobile gut, and that it is applied with the greatest possible ease and speed. It is no small advantage in favour of such an operation as colotomy, that it can be performed quickly. The operation of Reclus can easily be completed in five minutes. It provides an excellent anus, with a suitable spur; and, if we deem it advisable, it is quite easy subsequently to close the lower opening after complete division of the gut.

Resection of a portion of intestine so as to prevent intestinal prolapse should also be unnecessary. If the upper bowel is pulled downwards, and the wound is not too large, there should be no prolapse. To cut the bowel through, and close up and return the lower portion, may in one case out of ten or twenty end in disaster. This would occur if there resulted complete closure at the stricture, when the discharges would be forced upwards into the closed gut. And the advantages of so returning the bowel are so slight, that this risk is not counterbalanced.

Also, removal of protruding pieces of gut need rarely be carried out. The portion of intestinal wall around the opening shrivels up and becomes covered with skin; in fact, assimilates the artificial to the natural anus by a sort of inversion of skin rather than eversion of mucous membrane, thus preventing escape of mucus and irritation of exposed mucous membrane. The delay of a day or two in opening may, in all cases except those with enormous colic distension, be secured by removing gas and fluid fæces through a large aspirator needle, repeated as often as seems desirable. The small opening made by the needle may easily be closed up by a Lembert's suture.

J. Greig Smith.

OPHTHALMOLOGY.

Edward Jackson of Philadelphia, at the Ninth International Congress, held at Washington, brought forward a proposition that prisms should be numbered according to their *power of deflecting light* in its passage through them, and showed that the present method of designating them according to the number of degrees of the *reflecting angle* bears no accurate ratio to their power, on account of the varying and uncertain refractive index of the glass used in their manufacture. The author, with Landolt and Swan

Burnett, were appointed a Committee to investigate and report upon the matter.

Since this time much has been written on the subject. The general principle that prisms should be designated *according to their power*, and not according to their shape, has been very unanimously accepted; but the question still remains, What is the best way of numbering prisms?

Two authorities have suggested that the *angle* through which the ray is deflected should be measured:

(1) Jackson originally proposed to designate the prism by the *number of degrees* it deflected light passing through it in the direction of minimum deviation. Landolt also supports this view. He says: "We appreciate and express the excursions of the eyes as well as their anomalies in *angular degrees*. The field of fixation, the angles of strabismus, are objectively measured by instruments which are divided into *degrees*." As the deviation produced by a glass prism may be regarded as equal to half the angle of figure of the prism, an easy calculation on the present marking could be made.

(2) Dennett wishes to use the "Radian" (the angle whose arc is equal to the radius 57.295°) as a basis for the new system, making the standard prism one which deflects light one hundredth part of a radian; and this unit prism he proposes to call a "Centrad" = .57°. A prism causing deflection through x times this angle, would be designated x centrads.

(3) Prentice, on the other hand, finds it more practicable to measure the *base* of the angle through which the ray of light is deflected. He takes the linear measurement of deflection on a plane surface, situated at the distance of a metre from the prism; and he fixes his unit, which he calls a "Prism dioptre," at one centimetre on the metre plane. Swan Burnett writes strongly in support of adopting Prentice's suggestion. He says: "While it is exceedingly difficult, and only by aid of complicated apparatus, to measure the minimum angle of deviation, or the centrad, the amount of deflection on a plane surface is most easily determined." We have only to place a centimetre measure at right angles to the line of vision, at a metre distance, and, looking through the edge of the prism, read off the amount of displacement on the scale in centimetres of a vertical line, as seen above and below the edge of the prism tested: No. 1 gives a deflection of 1 c.m.; No. 4, of 4 c.m.; ½, of 50 m.m.; and the ratio of displacement being 1 to 100 (1 c.m. to 1 metre), the calculation can be as easily made, taking any multiple of the metre as the distance of the plane. The

decentring of lenses is very simple on this method; 1 c.m. of decentration gives as many prism dioptres as the lens contains dioptres of refraction.

Burnett adds that the present numbering of prisms happens to correspond very nearly to the numbers in prism dioptres, and that the stock of prisms now in use could be still utilised under the new nomenclature; that the metric standard is thus maintained, and he quotes a firm of manufacturing opticians as expressing themselves strongly in favour of the metric system of grinding, and of the practical value of Prentice's prismometer, which measures to $\frac{1}{100}$ of a prism dioptre; that the value of the metre angle of an individual is easily expressed in prism dioptres according to his interpupillary distance.

Jackson points out that the methods of Dennett and Prentice are almost identical; the "centrad" is $\frac{1}{100}$ of the radius measured on the arc; the "prism dioptre" is the $\frac{1}{100}$ of the radius measured on the tangent; and that for practical purposes as applied to prisms used in ophthalmology, they may be regarded as identical, and show, at any rate, less inaccuracy between one another than the sets of trial prisms now in use. Both prism dioptre and centrad bear an extremely simple relation to the metre angle—the radius of which is 1 metre, and the tangent half the distance between the pupils. Each centimetre of half the interpupillary distance gives one centrad of angular deviation. The metre angle of 6 c.m. interpupillary distance (rather below the normal) is 3 centrads; it also equals, very nearly, 3 prism dioptres. The difference between the arc (the centrad), the tangent (the prism dioptre), and the sine (the metre angle) is practically the same for a prism of 5° or under; for a prism of 10° the arc = .17451; the tangent = .17633; the sine = .17365.

There is, however, no real analogy between the metre lens and the metre prism; and no reason exists between them for the choice of 1 c.m. as the standard of deflection, whether it be measured on the plane or on the arc. The centrad .57° is nearly equivalent to half a degree; and it is difficult to see what useful purpose is served by introducing a word which suggests no analogy in terms with the purposes to which it would be applied, because all our ideas for the use of prisms are, and will continue to be, measured by the degree. The writer is of opinion that ophthalmological prisms should be marked in degrees and minutes according to their minimum angle of deviation. The work done by the prism would thus be accurately stated in the same terms as are used for the conditions it is intended

to control. The comparison of this marking with the metre angle is readily made, and a convenient series of standard strengths would find their way into the trial cases; or else a standard prism of 15 minutes might be taken to be called a "quarter," and its multiple x be marked $\frac{x}{4}$, the essential point being to retain the degree as the basis of calculation.

The centrad has been somewhat hastily adopted as a unit of strength for prisms by the American Ophthalmological Society—July, 1890. At the International Medical Congress little interest was taken in the matter; but it is quite certain that it will not be allowed to rest.

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Consideration must be more and more directed to this question of prisms, as the subject of muscular insufficiency and latent deviation of the eyes is just now receiving so much attention, particularly in America.

The terms suggested by Stevens, according to the various tendencies of the visual axes, Hetero-phoria, Eso-, Exo-, Hyper-phoria seem to be coming into more general use, and the large amount of labour he has given to this subject has at any rate called attention to it, however much its importance has been exaggerated.

Thus it is even claimed, (1) That faulty relations of the eye muscles, through eye-strain, cause epilepsy, chorea, and similar disorders. (2) That these faulty conditions may be rectified, and these disorders cured by graduated tenotomies. The Report of the Committee of the New York Neurological Society, appointed to investigate the subject of treatment recommended by Dr. Stevens by lenses, prisms, graduated tenotomy, or advancement of ocular muscles for neuroses, of which epilepsy and chronic chorea were taken as types, resulted in an expression of opinion very unfavourable to Dr. Stevens's views; and during the last few months many have stoutly denied the very existence of muscular insufficiencies as a cause of discomfort, and have denied that prisms or operations are of any use in any form of asthenopia.

Not a few agree with Stevens that all sorts of reflex nerve troubles depend alone on muscular defects; others err in the opposite direction. Thus, Roosa disputes the whole of Stevens' doctrine regarding muscular asthenopia, and considers that all cases in which the symptoms thus named exist, they are due to errors of refraction. If insufficiency of the recti is clearly shown to exist, it is due to the refractive error present. Many of the cases are astigmatic, and Javal,

since the use of his ophthalmometer, now very seldom prescribes prisms, and Roosa has entirely given them up.

Very much the same views were expressed by many of the authorities at the Berlin Congress. Landolt, however, still holds that asthenopia from muscular insufficiency really exists, and the author of this report cannot but agree with him, both upon the perusal of published cases and from personal observation; although, no doubt, they are not of such common occurrence as some observers indicate.

Woodward says that there are numbers of cases in which the error of refraction has been properly corrected, but the disappearance of the error in the ocular muscles has not ensued as a consequence. The correction of the anomalies of the ocular muscles may be made by resorting to either prisms or operative interference: prisms, as a rule, are unsatisfactory in a certain proportion of cases, in some they serve our purpose very well. The modern operative methods are based upon a much more thorough understanding of the visual apparatus than formerly obtained, and when performed by a competent person are eminently satisfactory. (This criticism, on the other hand, is perhaps rather too flattering.)

Noyes has found prisms of much service in cases of muscular asthenopia, the large majority of which were due to insufficiency of the external recti. Most of his patients followed some occupation requiring persistent eye-work, and the majority had good general health. The principal symptoms were, headache on waking in the morning, pain in the eyes, blurred vision, spasm of accommodation, difficulty in keeping the eyes fixed on one point, or in following a moving object, and vertigo. In a very large number the refraction is said to have been emmetropic. Three-fourths of the cases were quite relieved by use of prisms, of a strength, as a rule, not more than three degrees, in combination. In three cases tenotomy was done.

Dr. Allen Starr, in considering "peripheral irritation and nervous phenomena," said that in testing the power of ocular muscles he had observed under the same tests, in the same individual, at different times, considerable variations, depending upon the patient's general condition. In epilepsy there was often evident variation in equilibrium of the ocular muscles, before and after the attack. In neurasthenia and other functional diseases the ocular muscles might at times show a relative weakness; and by directing a patient's attention to an organ, he became conscious of sensations that seemed abnormal, though they might be perfectly

natural. But out of three thousand cases of nervous disease, he could cite only one case of true nervous manifestation undoubtedly caused by eye-strain.

Hewetson claims to have cured an epilepsy by correcting the refractive error, and says that myopic astigmatism has caused *petit mal*.

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Eales says that headaches due to ocular causes, however general and diffused they may become after they have set in, invariably commence in one or both of the eyes themselves, or more commonly over one or both eyebrows, or the forehead, or over one or both temples, or over the root of the nose; and that the great majority of such headaches are due to ocular conditions. He thinks that eight or ten hours a day is the maximum time, not continuous, that the effort of accommodation can be maintained in a healthy eye without discomfort.

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Galezowski advocated, in retinal detachment, tapping off the subretinal fluid, and injecting iodine between the retina and the choroid.

Schoeler has reported twenty-eight cases of detachment, in which he has injected one or two drops of tincture of iodine in front of the detachment, so as to separate it from the overlying vitreous, and to encourage plastic adhesion between retina and choroid. One-third of the cases were stated to be cured, fully and permanently; in another third temporary benefit resulted, and no harm at any rate followed; and in only four cases were the eyes damaged by the treatment.

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Abadie, believing fully in the microbic theory as to the causation of sympathetic ophthalmia, recommends that germicides should be injected, at as early a stage as possible, into the sympathising eye. Two drops of a sublimate solution, 1 in 1000, form the best injection. He also recommends cauterisation of the wound in the exciting eye, and similar injections of sublimate. This treatment may be of some service after sympathy has distinctly occurred; and under circumstances where the damaged eye possesses useful vision, and the indications for removal are not absolute, it might be tried; but there is danger lest in many cases such attempts on the damaged eye should only hasten the onset

of sympathetic inflammation in its fellow, and lest the only safe procedure—viz., removal or evisceration of the exciter—should be unduly delayed.

His experiences are, however, especially interesting in connection with Schoelers', as indicating the safety of injecting two or three drops of an aseptic fluid into the eyeball.

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Raehlmann draws a distinct separation between trachoma, in which the granulations are always derived from the *follicles* of the conjunctiva, and the chronic purulent conjunctivitis in which the *papillæ* are enlarged. The follicles may be superficial and comparatively innocuous, or they may lie deep in the lid tissues and cause much trouble. The progress of the disease may be acute with profuse discharge, or chronic, in which case there may be no discharge (trachoma siccum), the grey translucent follicles showing in marked contrast to the general hyperæmia of the lids. Where the follicles are numerous and deep-seated, there is much pain from tension, softening, and degeneration of tissue at a later stage, with profuse discharge of pus and of the follicular *débris*. This is followed by chronic thickening of the lid, cicatrisation, and irregular curving of the tarsal cartilage. Pannus seems to depend on the tendency of the corneal tissues, and not only on friction of the lids; but it is more frequent in those cases where the lid-condition is worst. Our author's description of the pathology of the affection would indicate the value of the sharp spoon, or cautery, in clearing out the deep-seated granulation masses and abscesses.

Prince has recently modified an old form of forceps, for the purpose of squeezing out the follicles as they grow; and Arnauts claims good results by instillation of 1 in 120 solution of mercuric bichloride; while Ziebrecht finds the best remedies are one-per-cent. solutions respectively of nitrate of silver or of chloride of zinc.

Dr. Darier of Paris strongly recommends a modification of Sattler's thorough treatment:—(1) Anæsthesia by chloroform. (2) Enlargement of palpebral fissure, by cutting external canthus. (3) Complete exposure of inner surface of lid and cul-de-sac. (4) Deep scarification, so as to let the subconjunctival granulation tissue easily through the conjunctiva without tearing the latter. (5) Erasion of granulations. (6) Brushing with 1 in 500 sublimate solution, which must be thoroughly and carefully done in each recess. (7) Compresses for several days.

Abadie has watched the progress of these cases in his Clinic, and strongly supports this plan of treatment.

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It has been suggested by Fränkel that operations upon the eye are especially prone to cause mental derangements. Blindness may be a predisposing cause of low vitality, and conversely cases have been quoted where mental disturbances occurred during the time blindness was coming on, and were cured by the restoration to sight given by the operation. The ill effect of shutting out light by bandaging is strongly stated. The tendency probably depends rather on the mental anxieties associated with loss of vision, than upon the anatomical proximity of the eye to the brain. Senility may be a predisposing factor. Potassium bromide and chloral are recommended when psychoses occur.

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Sulzer has studied affections of vision associated with malarial poisoning. During the acute febrile attacks he has described hemorrhage in the neighbourhood of the macula and optic disc; venous hyperæmia of nerve and retina; amblyopia without ophthalmoscopic changes—in some cases amounting to amaurosis which lasted several days, but disappeared with use of quinine. Other symptoms depend upon malarial cachexy, hemorrhage in peripheral portions of retina, diffuse infiltration of the vitreous, and chronic optic neuritis. He has also seen sudden incurable blindness, probably depending on cortical embolism or hemorrhage.

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Russian influenza has been a prolific source of inflammations in the eye and its appendages.

Four cases of idiopathic tenonitis are described by Fuchs; in two pneumococci were found in cultivations made from the secretion—one case suppurated.

Hill Griffith quotes Steower's report of a case of proptosis with paralysis of the levator palpebræ and superior rectus due to a similar cause; and two cases of optic atrophy with marked and permanent sight deterioration, for which influenza was the only explicable cause.

Landolt considers that a special form of conjunctivitis was common during convalescence from influenza; it affected the connective tissue of both ocular and palpebral conjunctiva. He also saw several cases of acute œdema of the lids.

Fage (Bordeaux) reports a list of eye-disorders after in-

fluenza. He found no connection between the severity of the influenza and the ocular trouble. The latter was usually found somewhat late in the desease, but might occur at its height, or during its decline.

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Professor Ladenburg is stated to have tested duboisin sulphate, and to have found it identical with hyoscyamine; subsequently, that he found a sample of duboisin identical with hyoscine, and that in this no hyoscyamine was present. Messrs. Schering state that they worked Duboisia Myoporoides leaves for duboisin, and obtained a base the sulphate of which exactly corresponded to sulphate of hyoscyamine. It seems probable, therefore, that Duboisia Myoporoides contains both hyoscyamine and hyoscine, the product sold as duboisin consisting of the one or the other base, either exclusively or in a preponderance, according to the method of preparation.

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Randall recommends as a mydriatic for refraction purposes hyoscyamine sulphate, gr. ij., ad. ℥j., at night, and in the morning before examination is made. He says its action is more prompt and energetic than that of atropia in stronger solutions, and its full action is obtained in about half an hour, and continues for three days; after which, its effect gradually ceases in about two days. He advises, as a rule, full correction in myopia (as well as in hypermetropia); the glass given should accord with the static refraction of the eye, as determined under mydriatic paralysis.

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Kolinski points out that naphthalin tends to degeneration of the blood-vessels. The eye being one of the most highly vascular organs, easily shows changes induced by interference with the nutrition of the blood. Naphthalin is said to cause extravasations in the choroid, ecchymoses in the retina, and afterwards cloudiness of the lens and vitreous body.

A few drops of chloroform put into the ear are stated to relieve the photophobia and sneezing which accompany acute keratitis when the light falls upon the cornea. The result is considered by Guttierez-Ponce to be due to production of anæsthesia of the Gasserien ganglion.

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Eversbuch has reported a case of ciliary neuralgia, caused by the point of a needle penetrating the eyeball at the

sclero-corneal junction; possibly it had detached the iris from its insertion. The symptoms were removed by application of the galvano-cautery to the scar of the original wound.

* * * *

In the Ophthalmic Hospital at Stuttgart, Koch's fluid has been injected in cases of ulceration of the cornea and in blepharitis of strumous children, with much the same general and local reaction as follow its results in lupus; there was no reaction in two cases of syphilitic iritis, or in one of granular conjunctivitis.

Albrand had a typical result in a patient who suffered from tubercular nodules at the edges of the lids with implication of the associated glands. The treatment seems likely to be of value in very obstinate cases where the disease is entirely extra-ocular.

F. R. Cross.

[*The reports of cases of Koch's treatment, promised in the last number, are deferred until they are completed.*—Ed.]

Reviews of Books.

Hypnotism or Psycho-Therapeutics. By R. W. FELKIN, M.D. Edinburgh: YOUNG J. PENTLAND. 1890.

This is a small book of 84 pages, a reprint of a series of articles contributed to the *Edinburgh Medical Journal*.

After a review of the various opinions that have been held in England of late years concerning hypnotism, the author proceeds to describe the means used to hypnotise persons, dividing these, as is usually done, into those acting by mental suggestion and those acting by physical stimulation. In doing so, he does not clearly point out that monotonous sensory stimulation, unaccompanied by any suggestion, produces only ordinary sleep; and that for hypnosis to occur, the person's attention must be fixed on the hypnotiser.

In describing the phenomena of hypnosis, Dr. Felkin gives, without a word of criticism, a description of Charcot's three stages—somnambulism, lethargy, and catalepsy—not even mentioning that these are now almost universally held to be cultivation-products—states, each characterised by a group of physical reflexes the result of education.

After a rather prolonged account of the possible dangers of hypnotism, Dr. Felkin gives a very fair account of the therapeutic uses of suggestion during hypnosis, showing that its field is practically limited to the treatment of non-organic nervous disorders; *e.g.*, neuralgias, apyretic muscular pain, habit spasms, stammering, insomnia, hysterical phenomena, morphinomania, etc.

There then follows a statement of the various theories as to what hypnosis is, and these are given at some length; but it is not pointed out what has been the general result—*i.e.*, that hypnosis has the greatest possible resemblance to ordinary sleep, only differing from it in that the attention is fixed on the hypnotiser, to the exclusion of modifying voluntary judgments and sensory impressions, so that all suggestions are accepted, and that on the cerebral changes corresponding to these depend the bodily effects observed.

The book is rather a collection of opinions than a critical

account of the subject, and would have been more valuable a few years ago than at present; for we now have translations of the writings of Binet and Féré, Bernheim, Moll, and other authorities on the subject.

A Treatise on Materia Medica, Pharmacology, and Therapeutics. By J. V. SHOEMAKER, A.M., M.D., and JOHN AULDE, M.D. Vol. I. Philadelphia: F. A. DAVIS. 1889.

The names of Drs. Shoemaker and Aulde are a guarantee that their joint product will be worth possession, and still more worth consulting as a guide. This first volume does not deal with Materia Medica in the ordinary sense of the term, but with remedial agents not properly classed as drugs, and thereby fills a large lacuna in subjects treated of in most works upon Materia Medica published in this country. The list of remedial agents described and discussed is one of unusual completeness and extent, including such topics as earth-dressing, baunscheidtismus, and music. Electro-therapeutics are discussed in much detail, as is customary in American works on therapeutics or medicine; and we get a little fine writing on this favourite topic. For example, "What a powerful agent is this, capable of dynamic and chemical effects, with which we can touch as with the thrill from the tip of an angel's wing or blast with the fire of the lowest abyss!" &c., &c. "This is lofty," as Bottom says, but still the book is solidly useful.

Structure of the Central Nervous System. By Dr. LUDWIG EDINGER. Second Revised Edition. Philadelphia: F. A. DAVIS. 1890.

The object of these lectures was to lay before practitioners already familiar with the coarser anatomy of the brain what had been discovered in regard to its finer structure. Dr. Edinger has largely revised the first edition, incorporated the results of the intervening four years' work on the subject, and added several new figures.

The book opens with a short account of the methods of research adopted by different investigators, and of the em-

bryology and comparative anatomy of the brain. The main facts of the general conformation of the brain, and of the convolutions as seen in dissections, are passed in review, with the histology of the different parts. Then follow descriptions of the course of the fibres in the cortex and white matter of the hemispheres, of the structure of the basal ganglia, the subthalamic region and base of the brain, with chapters on the roots of the peripheral nerves, the spinal cord and medulla and their constituent parts, and on the origins of the cranial nerves. The author has avoided the discussion of controversial matter as out of place in a work of the kind; and, with regard to disputed points, has adopted the views that, according to his own researches or the statements of the most trustworthy authors, seemed to be the correct ones.

The arrangement of the different sections is excellent, the descriptions clear and concise, so that the structure of the most complicated regions can be easily followed and understood. An abundance of diagrams and figures — 133 in number—form not the least important part of the book, and do what good illustrations should; namely, bring plainly before the reader's eye the points alluded to in the letter-press. From this point of view, the fact that some of the figures are a little roughly executed does not detract from their value.

Dr. Vittum, the translator, and Dr. Riggs, the editor, have done their work well, and they deserve thanks for putting in the hands of the English student a book which will give him a sound practical knowledge of the structure of the central nervous system, and be a useful guide in the dissection of the brain. If we were disposed to find fault, we should say that in a few instances the accepted English equivalent for the foreign nomenclature has not been given, and that expressions such as "back of" and "aside from" for "behind" and "apart from" do not, in our opinion, add either to the beauty or the richness of the English language.

Diabetes: its Causes, Symptoms, and Treatment. By CHARLES W. PURDY, M.D. Philadelphia: F. A. DAVIS. 1890.

The book opens with an account of the distribution of diabetes in the United States: presenting as they do a large population with practically the same habits of life as regards dietary, &c., but living under great varieties of climate,

observations in the States should give us valuable information as to the influence of climate on the occurrence of the disease. The author thinks that "cold and high altitude are the chief climatic features that determine a high mortality from diabetes": he acknowledges, however, that the statistics on which he bases his opinion are not so complete as could be wished, and further evidence seems to us to be necessary. Curiously, the Indians and Chinese resident in the United States do not suffer from the disease. The chapter on treatment is a useful one, and will be especially valuable to the American practitioner. The author has aimed at being concise; but although clearness and brevity are desirable in a manual of this kind, we think that a monograph on a particular disease should aim at giving complete information on the subject: if it contains no more and no less than the more advanced text-books and dictionaries on medicine, we fail to see its *raison d'être*. The author would do well in future editions to leave out some, if not all, of the clinical cases, which run to 46 out of a total of 173 pages, and are of no special value, and to make the general account of the pathology and symptomatology of the disease more full. There is a short chapter on diabetes insipidus, which adds nothing to our previous knowledge.

On Unsoundness of Mind in its Legal and Medical Considerations. By J. W. HUME WILLIAMS. London: WM. CLOWES & SONS, LIMITED. 1890.

This book is a collection of essays on insanity from various aspects, primarily written at different times, and now brought together by the author, a barrister. From internal evidence, it would appear that these essays were written in their original, if not present, form a considerable number of years ago, in which case we must congratulate Mr. Hume Williams upon the very humane views which he takes upon such questions as moral and impulsive insanity. This is professedly not a text-book, hardly calling therefore for detailed criticism in these pages; so we will not do more than compliment the author on his display of legal and general learning, and thank him for the generous manner in which he speaks of medicine and the difficulties which surround the investigation of mental phenomena. With a distinct metaphysical bias, the author has given us an interesting and suggestive book, well worth reading by those engaged in the study of psychology.

A Handbook of the Theory and Practice of Medicine. By FREDERICK T. ROBERTS, M.D., B.Sc. Eighth Edition. London: H. K. LEWIS. 1890.

The rapid reproduction of new editions of this book is a sufficient indication of its utility and popularity. The natural tendency in the evolutional history of text-books is towards plethora and overgrowth; but this book is now in its robust manhood, and is not yet too corpulent, although it is fifteen pages larger than the last edition. It appears to be well up to date, and is worthy of the confidence that the present generation of students repose in it.

A Text-Book of the Diseases of the Ear. By Dr. JOSEF GRUBER. London: H. K. LEWIS. 1890.

Drs. Law and Jewell, the translators of this admirable work, have rendered a valuable service to English surgeons, and Bristol may claim to have assisted in the good work, inasmuch as the editor acknowledges that his thanks are due to Dr. Wedmore of Bristol, for many suggestions in the revision of proofs.

No less than 117 pages are devoted to the anatomy of the ear; and although we were inclined at first to resent this, yet on carefully reading the text we were so impressed by the accuracy and freshness of the descriptions, as well as by the excellence of the plates, that we welcomed it as one of the best treatises on the subject.

The remainder of the book is divided into two parts, general and special: the former treating of examination, pathology, and therapeutics, in a general manner; and the latter dealing with the principal morbid affections in detail.

The directions given for passing the Eustachian catheter are very good, and are illustrated by a useful diagram. Five movements are described: First, the introduction through the nostril; second, its advancement as far as the posterior wall of the pharynx; third, its withdrawal to the posterior margin of the hard palate; fourth, a second advance as far as the mouth of the Eustachian tube; and fifth, the rotation and pushing forward of the instrument into the orifice of the tube. This description seems to us as good as any we have seen, and is decidedly easier to follow than the method of Löwenberg which is advocated by most English aural surgeons.

The author is rather severe on Politzer's method of inflating the tympanum, and makes a great deal too much of the objections to its use, such as undue distension of the healthy tympanum in endeavouring to inflate the opposite side, forcing the water with some air into the œsophagus, and rupturing the drum membrane by undue force, &c. The method of inflation advocated for replacing Politzer's method is one invented by the author, and consists in making the patient say one of the following sounds: "Hak," "hik," "hek," "hok," "huk," while the air is blown into the nostril. We have tried this, and have found it distinctly inferior to Politzer's method, even when the patient can be prevailed upon to pronounce such un-English sounds as the above.

Inflammations of the middle ear are divided into exudative and plastic, the former being subdivided into catarrhal, purulent, croupous, and diphtheritic. "Experience leads the author to fix six weeks as the limit of duration of an acute idiopathic catarrh of the middle ear arising in an otherwise healthy individual. With a duration of six months he denominates it as subacute; and if longer still, as chronic."

We are much surprised that in a work of this kind no space should be devoted to the more serious complications arising from middle-ear suppuration, such as cerebral abscess, sinus thrombosis, and suppurative meningitis: all of these are dismissed with one short paragraph, and no account whatever of their symptoms or treatment can be found in the book from beginning to end.

The two lithographic plates in the beginning are the best of the kind we have seen, and give to the student an idea of the membrana tympani in health and disease as vividly as this can be conveyed by any artificial means. We look upon the work as the best in the English language on the subject.

Differentiation in Rheumatic Diseases (so called). By HUGH LANE. London: J. & A. CHURCHILL. 1890.

This paper, read before the Bristol Medico-Chirurgical Society, endeavours to analyse and differentiate the various conditions commonly spoken of as chronic rheumatism. The author emphasises the distinction between rheumatoid arthritis proper and the various joint deformities resulting from rheumatism, but nevertheless is obliged to admit the existence of "mixed cases" of rheumatoid and rheumatic arthritis. The mineral waters of Bath, and massage, appear to do more for such maladies than is often believed.

The Throat and Nose, and their Diseases. By LENNOX BROWNE, F.R.C.S. Ed. Third Edition. London: BAILLIÈRE, TINDALL & COX. 1890.

Diseases of the Nose and its Accessory Cavities. By W. SPENCER WATSON, F.R.C.S. Eng., B.M. Lond. Second Edition. London: H. K. LEWIS. 1890.

A Handbook of Diseases of the Nose and Naso-pharynx. By JAMES B. BALL, M.D. Lond., M.R.C.P. London: H. K. LEWIS. 1890.

Of these three books which deal with disease of the throat and nose, the first one no longer needs any introduction. We notice, however, that its author has changed the title of his work, and the additional pages on rhinology render the book distinctly more valuable than the previous editions. Mr. Lennox Browne evidently does not believe in specialising too narrowly, because he considers that there is an intimate relationship between disease of the so-called erectile tissue in the nasal turbinated bodies and that of the generative organs of both sexes, so that the gynæcologist and rhinologist are more nearly allied in their work than we are accustomed to suspect. We do not, however, agree with him that it is in accordance with common experience that atrophic rhinitis is closely connected with wasting or non-development of the female generative organs. We think that he might with advantage elaborate what he has written on ear disease, because the majority of ailments of that organ are secondary to affections of the nose or naso-pharynx.

The chapter on deviations and deformities of the septum is admirably illustrated by drawings, which show at a glance the operative measures necessary for the removal of the pathological condition. We are glad to find that Woakes' mischievous ideas as to the frequency of the occurrence of "necrosing ethmoiditis" are condemned. The chapters on diphtheria, lupus, and leprosy are exceedingly good; but we doubt if the theory that leprosy is an extremely attenuated tuberculosis as regards its progress and duration, but more virulent in its contagiousness and in the extent of its ravages, can be accepted.

The book shows abundant evidence of the author's skill as an artist, is well printed and bound, and is worthy to take

its place on our shelves as a standard volume on the diseases with which it deals.

Mr. Spencer Watson's book thoroughly covers the whole ground of rhinology; and, besides this, contains articles by Dr. Robert Liveing, Mr. William Adams, and Mr. Cumberbatch.

A perfect system of classification and a methodical description of disease of the nose and accessory cavities has only recently been attempted; and we consider that Mr. Watson, by dividing his sections into subsections, and so gradually working out distinct pathological conditions, aids us in our study of the organ, and helps us to a right treatment of the numerous obstacles to the performance of the respiratory or olfactory function, such as deformities of the septum, spurs, polypi, and hypertrophic rhinitis, all of which frequently coexist in the nostril, and must be accurately dealt with if we are to effect a cure.

Numerous authors are referred to, many illustrative cases quoted, and the book is very well illustrated, and goes further than some other works of a similar character, Rhinoplastic operations, diseases of the skin and subcutaneous tissue of the nose, and intra-cranial complications of nasal affections being dealt with.

Dr. Ball's book is a handy *resumé* of the subject; but it appears at a time when several more elaborate works on the nose have just been published, which will militate against its being read.

Hygiene and Public Health. By B. ARTHUR WHITELEGGE, M.D., B.Sc. Lond., D.P.H. Camb. London: CASSELL & Co. 1890.

Text-Book of Hygiene. By GEORGE H. ROHÉ, M.D. Second Edition. Philadelphia: F. A. DAVIS. 1890.

Aids to Sanitary Science. By FRANCIS J. ALLAN, M.D. London: BAILLIERE, TINDALL & COX. 1890.

The student of public health who carefully reads Dr. Whitelegge's manual will have gained a very concise and practical insight into the principles underlying the modern practice of hygiene, and will have laid a very useful founda-

tion for subsequent study. Particularly well written are the chapters on infection, disinfection, and the specific diseases; and here, as also in those dealing with notification, schools and infection, the duties of medical officers of health, and the framing of by-laws, there is evidence that the book is the outcome of actual and valuable experience. The chapters on sanitary law and statistics are necessarily brief; but here again the text may be safely accepted as a trustworthy introduction to the larger treatises. It would be difficult to recommend a better guide to inexperienced health officers.

Dr. Rohé's work forms a very handsome volume, and is pleasant reading; but it is hardly convincing. The chapter dealing with the analysis of water, for example, is far too general and incomplete to be taken as a sufficient guide by the student without consulting the supplementary text-books indicated at the end of the chapter, and yet the book is intended to be a "comprehensive treatise." The history of epidemic diseases in Chapter XIX. *et seq.* is, however, very interesting; and the chapter on antiseptics, disinfectants, and deodorants is fairly complete and trustworthy. Taken as a whole, the work contains a considerable amount of varied information of considerable interest, somewhat popularly treated.

Dr. Allan's *Aids to Sanitary Science* is much better than many of its class. The information it contains appears to have been carefully selected, and to be fairly up to date. Used as a lecture note-book in order to refresh the memory, it may be found useful; but it is of course not intended for, and its necessarily brief style would render it most exasperating if used as, a text-book.

Foods and Dietaries. By R. W. BURNET, M.D. London: CHARLES GRIFFIN AND COMPANY. 1890.

We are not in love with diet tables, and this book is full of them: nevertheless, the author appears to have accomplished the difficult task of arranging a special diet for a very large number of distinct classes of disease; repetition is of course unavoidable, but patients who carry out the programme will not be likely to die of starvation unless they weary of the sameness of the diet from day to day. We think that the subject of feeding by enema might receive a more detailed consideration.

Electricity in the Diseases of Women. By G. BETTON MASSEY, M.D. Second Edition. Philadelphia: F. A. DAVIS. 1890.

This little work is a very good one to instruct a medical man in the use of electricity in certain diseases of women; but for anyone who has already mastered the elements of electricity, the greater part of the first 100 pages may be passed over. In reference to the apparatus recommended, we are of opinion that a much more simple form of constant-current battery can be purchased of any good English maker. We are in the habit of using an acid sulphate of mercury battery for constant current, and find it fulfils all requirements. Again, a much more simple form of rheostat answers all purposes.

In the relief of stenosis, the author of this work relies on the use of the *positive* pole, whereas we have always found that the *negative* pole produces a much larger canal; and, in fact, we frequently have to use the negative pole to overcome the contraction brought about by the positive pole when treating fibroids of the uterus. The general good results obtained in the treatment of myoma uteri by Dr. Massey is in accordance with the opinion of men in this country and in France who have thoroughly tested the treatment. The author states he has had no experience with the Faradic current in inflammatory conditions of the appendages, preferring the Galvanic current instead. We, however, consider the Faradic preferable to the Galvanic in these cases, and use it by means of a bi-polar vaginal electrode. Dr. Massey's use of the intra-uterine galvanic current for pelvic pain is to be regarded in some cases as of very great service, but in the majority of cases the Faradic current is to be preferred. The electrical treatment of extra-uterine pregnancy we condemn absolutely, and consider the treatment advocated by the author as highly dangerous. In amenorrhœa, Dr. Massey has had good results by the use of electricity, the bleeding produced by the negative pole being most marked; but we cannot accept in all cases that menstruation has been established simply because a blood discharge from the uterus has been induced. In carcinoma, the author is of the same opinion as most electricians, that the high currents interrupted are very dangerous, and that all the good results can be obtained by comparatively weak currents used in connection with puncture. We entirely agree with this.

The book as a whole is written in good style and the ideas are clearly expressed, and to those who wish for information on what is a new subject to many we recommend the perusal of the work.

Ointments and Oleates. By JOHN V. SHOEMAKER, M.D. Second Edition. Philadelphia: F. A. DAVIS. 1890.

It is rather more than ten years since Dr. Shoemaker brought out his work on Oleates, and now in this second edition he embraces the subject of ointments generally. The treatment of diseases of the skin has attained in these days to great importance, and of these diseases that of eczema, to use the expression of a very distinguished dermatologist, Professor Unna, "has long been the barometer from which we can read the exact position of dermatology of any particular period."

It is more especially in the treatment of eczema that we have associated Dr. Shoemaker's name with certain useful oleates, and chiefly those of mercury and zinc; and now we have given to us in the book before us the most recent and improved processes for their production, and also for the oleates of bismuth, copper, lead, iron, silver, tin, zinc, and a very powerful mercurous oleate, besides several others of less import; and although we cannot here go into full details about them, we can state that they each and all have their particular uses, and may often be prescribed with advantage. Then, in addition to the Oleates, rather more than two-thirds of the work are occupied by an account of ointments generally, including all those used in the British Isles, the United States, Germany, France, Austria, Italy, Spain, Mexico, and Chili. The information is very full and interesting, although not always very useful. After looking through it we were inclined to say, "Show us the Pharmacopœia of a country, and we will tell you the state of medical education there."

When we read of the arthanita ointment, with ten ingredients, of the Italian Ph., and a similar one, but very much compounded with twenty-two articles, of the Spanish Ph., we scarcely know which to be astonished at the more: the "weapon-salve" of the ancients, which had such a subtle influence that when rubbed on the weapon which had inflicted the wound it could cure the wound, whatever space intervened between the two, by a magnetic force conveyed

through the air to the wound; or the compound ointments with nearly two dozen ingredients, amongst which were ox-gall, scammony, jalap, colocynth, and aloes. What a wonderful quiverful of arrows! This is polypharmacy with a vengeance!

However, we must not forget to record the many good hints and useful information given, and certain elegant preparations which are described in this part of the work. Basilicon ointment—containing varying proportions of wax, resin, and olive oil, and sometimes other things as well—seems to be a universal favourite.

Before again referring to the Oleates, we are sorry to introduce any words of censure where so much praise is due; but we must take exception to the construction of sentences here and there, as being a little slipshod and ambiguous. Thus on p. 1 is a very awkward sentence beginning with "But"; and on p. 86 we meet with a plural noun, "exudates," which we never met with before, nor is it found in a very comprehensive American lexicon which we consulted. Then the last sentence on p. 272 is very faulty, the "which appears" being not at all apparent.

However, we must conclude our remarks by expressing our indebtedness to the author for his explanations and researches about some of the more recent Oleates, and for extending the uses of the older forms, and we shall certainly return to the treatment of many skin complaints with feelings of greater confidence and security after the perusal of Dr. Shoemaker's pages.

Notes on Preparations for the Sick.

Diabetic Foods.—G. Van Abbott & Sons, London.

The older preparations for diabetics are for the most part well tried, and Messrs. G. Van Abbott & Sons have from time to time added many new kinds of biscuits, cakes, and rusks, made carefully to avoid as much as possible the introduction of sugar or starch. The latest novelty is the use of Soy Bean Flour (from the soya hispida) for the making of bread, biscuits, and rusks. The use of "Soya bread" has recently been advocated for diabetics by no less eminent an authority than Dujardin-Beaumetz. Lucerf, according to Professor Yeo, was one of the first to call

attention to the value of the meal of soya hispida in dietetics. The meal is very rich in nitrogenous substance, more so than animal flesh, and the amount of starchy and saccharine substance is very small.

Analysis of the bread gives the following results:—"We find it to contain as much as 25.02 per cent. of nitrogenous matter, and as little as 2.72 per cent. starch, and 4 per cent. of mineral matter. In texture it is just like ordinary wholemeal bread, and it possesses quite an agreeable taste." Messrs. Van Abbott and Sons have evidently made a very valuable addition to their list of foods which are intended for the use of the diabetic. The biscuits are not less satisfactory.

Rigid attention to the question of diet is well known to be an absolute necessity in the graver forms of diabetes, and hence the need for as great a variety as is possible in the list of what a diabetic "*may eat.*"

Fluid Extract of Malt.—B. KEEN, Bristol.

The ordinary thick malt extract is peculiarly nauseous to some patients, and a fluid substitute is likely to be often useful. The fluid extract may be readily combined with wine, milk, and other medicinal fluids, and must be an efficient vehicle for cod-liver oil.

Apioline Chapoteaut. Hamilton's Linseed Leaves. Gouttes Livoniennes.—WILCOX & Co., London.

The active principle of apium petroselinum, differing from the solid apiol, is dispensed in capsules, each containing 25 centigrammes. Two or three of these prescribed daily at the monthly period, and repeated the following month, have succeeded in bringing on the menses. In cases of dysmenorrhœa and amenorrhœa, we have found the drug to be more efficient than other reputed emmenagogues.

Linseed leaves are used in the same manner as the well-known Rigollot's sinapism: they should be steeped in warm water for one minute, and after application to the part should be covered with gutta-percha tissue, by which means the heat and moisture may be retained for some hours. They appear to be a great improvement on the ancient and now somewhat unpopular linseed poultice.

In **Gouttes Livoniennes** we have a combination of Norwegian tar, beech tar creasote, and balsam of tolu, in the form of capsules. We have found them to be useful in the treatment of phthisis.

Medicine Cachets. — Burroughs, Wellcome & Co., London.

These are made of pure rice starch, and are readily soluble by the saliva or the pancreatic ferment of the intestines. They are intended to be employed as a means for disguising the taste of nauseous medicines such as balsam copaiba, cubebs, quinine, and many other medicines where the taste would be objected to. They are also convenient for taking pills or "tabloids" of compressed drugs. When a "tabloid" is enclosed in the rice starch shell it is dipped into a little water, which immediately causes the film to closely fit the contents. When placed on the tongue the cachet does not readily break up, but may be swallowed intact with a draught of water.

These cachets are a very useful addition to the apparatus of the sick-room. Any nauseous powder when prepared in this form is easily swallowed, and is preferable to a pill, inasmuch as it must be much more easily dissolved. We think it should be the duty of the dispenser to prepare the cachets, otherwise mistakes in the dose are likely to occur.

Tonic Port Wine.—W. & A. Gilbey, London.

This preparation is a wine from which, it is said, tannin and astringent substances have been removed, and in which we have the simultaneous existence of the extracts of the grape, malt and meat. This is a powerful combination, but one which is distinctly medicinal and not altogether agreeable to a sensitive palate. It may be safely given even where other kinds of alcoholic beverages are not desirable.

Bristol Medico-Chirurgical Society.

January 14th, 1891.

Mr. S. H. Swayne, President, in the Chair.

Dr. F. H. Edgeworth exhibited specimens and microscopic sections from cases of cystic disease of the liver and malignant disease of the pylorus. In the former, which was from a female patient who died from peritonitis following herniotomy, all the bile passages were dilated, the common duct admitting a lead-pencil; the gall bladder was distended and contained biliverdin granules. Cysts, varying in size from minute specks to two inches in diameter, were scattered throughout the liver. These were full of a white

opalescent fluid and lined by pavement epithelium. The condition was probably due to retention, not to primary cystic disease of the organ.

In the second case there was a nodular ulcerating growth at the pyloric end of the stomach, with secondary growths in the liver and great omentum. The left ovary was uniformly enlarged by a deposit, which under the microscope showed the features of an adenoma, as did sections of the other affected parts. It was thought that the ovary was involved by the transference of particles through stomata in the epithelium at the hilus of this organ.

Mr. C. A. MORTON showed (1) a case of branchial fistula in a child aged 10, with a retention cavity behind the opening; (2) a girl aged 10, with uni-lateral congenital dislocation of the hip; and (3) microscopic sections of a sarcoma of the thigh showing small cells and branching cells forming a network with smaller ones in the meshes.

Dr. J. E. SHAW exhibited a heart from a woman aged 38, who had suffered from congenital cyanosis. The organ had the following peculiar abnormalities: The aorta sprang from the right ventricle, the pulmonary artery from the left, and the two vessels were connected by a large and pervious ductus arteriosus. There was a patent foramen ovale, which would admit the tip of a finger; and in the upper part of the intra-ventricular septum was an opening one inch in diameter. The coronary vessels were extremely large and tortuous, being more than half an inch in diameter at their origin from the aorta.

Mr. MUNRO SMITH exhibited microscopic sections from three cases of sarcoma of the tibia, which illustrated the various modes of growth of these tumours, and showed a patient who was affected with scirrhus of both breasts and secondary nodules scattered over the thorax. There were also deposits in both eyelids and orbits.

Dr. MICHELL CLARKE showed a patient who had suffered from locomotor ataxy for some years, in whom the knee-jerk was still present.

Mr. L. M. GRIFFITHS exhibited a placenta which had been firmly adherent, and which he had removed that morning. There were extensive deposits of white, firm material on the surface.

February 11th, 1891.

Mr. S. H. SWAYNE, President, in the Chair.

Dr. G. PARKER showed a patient who had suffered during the last 18 months from several attacks of transient left hemiplegia, each attack being followed by copious hæmaturia. The urine was normal between the seizures. Choreic movements of the left hand had often been present at the commencement, and had now become permanent. Consciousness was never lost. There was an old history of hæmaturia. The symptoms possibly depended on simultaneous hemorrhage from degenerated arteries in the brain and kidney.

Mr. W. R. Ackland read a short paper on the care of the teeth in childhood and adult life. He pointed out that the ordinary causes of decay were acid solvents in the saliva (due to gout, rheumatism, indigestion, &c.) and germs. Acid and ferruginous medicines, sugar, smoking, and heredity were also discussed as possible factors. Dr. Scanes Spicer's paper on the influence of mouth-breathing was mentioned. Hints as to the preservation of the teeth by alkaline lotions, antiseptic powders, the tooth-brush, &c., were given. The consequences of overcrowding and consequent irregularity of the teeth, loosening due to mercury, periostitis, &c., were touched upon, and finally some practical methods of relieving toothache were mentioned.

Dr. Michell Clarke read notes on two cases of intra-cranial tumours, and showed specimens of the same in sections of the brains. The first was from a man who had suffered from weakness of the left leg, increasing to complete paralysis of the left side, with severe occipital headache, vomiting, and finally coma. The tumour was syphilitic, and situated below the island of Reil on the right side. The other case was a glioma in the left optic thalamus of a girl aged six years.

Dr. Watson Williams read a paper on "The Therapeutics of Koch's Lymph." After briefly reviewing the physiological action of the fluid in tubercular and non-tubercular cases, he pointed out that the effects were probably due, not to chemical combination with the diseased tissue, but to stimulation of the defensive cells of the part, to successfully resist the invading bacilli. This was borne out by the facts that the amount of reaction was in proportion to the susceptibility of the patient, rather than to the amount of tubercular tissue, and that the best results sometimes occurred where there was least reaction. A comparison was drawn between this and the action of mercury in syphilis, which John Hunter considered to be due to stimulation of the tissues.

March 11th, 1891.

Mr. S. H. Swayne, President, in the Chair.

Mr. S. H. Swayne referred to the death of Dr. Frederick Brittan, the first President of the Society, and proposed that a letter of condolence and sympathy should be forwarded to his widow. This was seconded by Dr. Fox, and unanimously resolved.

Dr. Waldo exhibited two patients; viz., (1) A case of supposed lupus vulgaris in a girl which had been treated with Koch's lymph. There had been a well-marked general reaction, but no local one. (2) A boy with an eruption on his forehead of small flat papules, with shining surfaces resembling lichen planus.

Dr. Harrison showed a well-marked case of molluscum fibrosum in a woman aged 47. The disease began when she was 14 years old.

Dr. Shingleton Smith exhibited an interesting specimen of non-malignant stenosis of the pyloric orifice, from a female patient

aged 33. She had enjoyed fairly good health until October, 1889, when she had an attack of jaundice without obvious cause. This never quite cleared up. Vomiting came on, and gradually increasing emaciation. The vomited matter invariably contained bile. There was no hepatic enlargement, and no thickening of the pylorus to be felt. The patient was highly neurotic There was a small fibroid tumour connected with the uterus. Emaciation became extreme, and in spite of persistent rectal feeding she died from inanition. At the autopsy it was found that there was an extremely small pyloric orifice which admitted a No. 8 catheter, with no signs of morbid growth or muscular hypertrophy. There was no evidence of organic disease in other organs. The gall-bladder contained a quantity of bile. Dr. Smith considered this to be, probably, a congenital condition, and referred to Landerer's report of cases of this nature.

Mr. PAGAN LOWE read notes on a case of pemphigus vegetans which occurred in a married woman aged 47, and resulted fatally three and a half months from the initial symptoms. The lips were everted, swollen, and covered with black crusts. Both eyelids were affected in the same way. The axillæ had a scalded appearance, and in the groins the epidermis was raised in thick, moist, leathery masses. Several pemphigus spots were dotted about the body and limbs. There was great pain in movement owing to the excoriations. Few cases of this remarkable disease are on record. Of these, only two (under Mr. Jonathan Hutchinson) recovered under treatment by opium.

G. MUNRO SMITH, *Hon. Sec.*

The Library of the Bristol Medico-Chirurgical Society.

The Committee, taking into consideration an influential request from a large number of the members of this Society, recently resolved to establish a reference library and reading-room. The formation of the Literary and Philosophic Club at 28 Berkeley Square, which had for one of its principal objects the accommodation under one roof of the scientific societies of the neighbourhood, offered one of its best rooms at a moderate rent to the Medico-Chirurgical Society. This offer was accepted; and so, amidst congenial surroundings, and with comfortable accommodation, the room was formally opened on January 5th by Mr. S. H. Swayne, the President, who was supported by several Past-Presidents and other influential members of the Society. Short speeches were made by the President, Mr. Augustin Prichard, Dr. J. G. Swayne, Dr. Shingleton Smith, and Mr. Nelson Dobson. Through the liberality of some members and others, and by the aid of the *Journal*, a considerable amount of literature is now at the service of those who belong to the Society; and with such an attraction the

Society should, within a very short time, find its numbers considerably increased.

There are now in the library over a thousand volumes, and 79 periodicals. None of these works are intended for general circulation; but members of the *Journal* staff may take out for a period not exceeding one week any periodical except the current number. Members have thus the advantage of knowing that practically they will find in the room any publication the Society possesses.

Amongst the books will be found many of the recent larger works of reference. The periodical literature, which comes from all parts of the world, is represented by 79 journals. Of these, 2 are published three times a week, 1 twice a week, 20 weekly, 7 fortnightly, 31 monthly, 6 quarterly, 2 half-yearly, and 10 yearly.

Mr. L. M. Griffiths, who has been appointed Honorary Librarian, will be glad to receive any books for the Library. Long sets of periodicals, transactions, and hospital reports, and works in several volumes, will be specially acceptable.

Obituary.

FREDERICK BRITTAN, B.A., M.D., M.R.C.S.

THE recent death of Dr. Brittan reminds us that the present Bristol Medico-Chirurgical Society owes much to him, because the support he gave it at its formation, and the philosophic character of the inaugural address which he delivered as its first President, indicated the lines upon which it should work, and went far to ensure for it the success which it has attained.

Frederick Brittan was born in 1823. His father was Meshach Brittan, a well-known solicitor of Bristol, who had several other sons, two of whom survive. He received his general education at private schools in his native town, being for a time in the junior department of the old Bristol College, where so many of the older generation here were educated; very many of whom have already passed away. For a short time he went to a school kept by the Rev. George Southwell, at 10 Richmond Hill; and the writer of this notice, who, with one of his brothers, was then at the head of the school, well remembers the advent of a couple of round-faced, chubby little boys, who in process of time developed into Dr. Brittan and his brother Alfred, now a solicitor in this city.

Thence they went early to Dublin, where they finished their general education at Trinity College, taking their degrees of B.A. in 1842, Frederick Brittan taking the additional degree of M.B. in the same year.

Being then only in his twentieth year, he came back to Bristol, and took a year's dressership under Mr. Lowe, one of the surgeons to the Infirmary; but he never attended the lectures at the Bristol Medical School. He subsequently went to Paris, and was a student in the hospitals there for another year. In 1844 he passed the

College of Surgeons; and in 1845, after going back to Dublin to take the M.D. degree, settled in Clifton.

Mr. Brittan, as he was then called, according to the commendable custom at that time prevailing of giving the title of Dr. to those only who professed to practise as physicians, after starting as surgeon, with the orthodox brass-plate on his door, began his work by publishing a translation of Malgaigne's *Operative Surgery*, which was well received; for Malgaigne was at that time one of the best known among the active Parisian surgeons.

In 1848 he joined the Bristol Medical School, where he lectured on various subjects, altogether for twenty years; being first chosen for the Chair of General Anatomy and Physiology. He was a popular and successful lecturer, and it will be of interest to have a record of his official connection with the School. He undertook the whole course of General Anatomy and Physiology from October, 1848, to April, 1853, at a time when the course meant a lecture six days in the week for six months, or one hundred and twenty lectures in the Winter Session; and at the same time he gave a summer course on Vegetable Physiology, as part of the Botanical Lectures—a subject imperative on all students in those days. He gave up the latter in 1854, and was succeeded by Robert Etheridge, whose name is well known in the scientific world in connection with geological and botanical subjects. In 1853–54 he gave half the course of Physiology and half of that on Descriptive and Surgical Anatomy, as a colleague of Mr. Prichard, who had taken half the Surgical lectures; and for the two following years as a colleague of Mr. Leonard. In 1855 he gave half the course of Physiology and half the course on Medicine with Dr. Stanton; and then he had all the lectures on Medicine until 1868, when he shared the course with the late Dr. Martyn of the General Hospital, and then resigned, being succeeded by Dr. Edward Long Fox.

In the year 1856, Mr. Brittan, who to this date had been practising as a surgeon, and was looked upon as one of the future candidates for the surgeoncy to the Infirmary should a vacancy occur, changed suddenly into Dr. Brittan, and was elected one of the Physicians to the Infirmary, under the following peculiar circumstances. When it was known that the post would soon become vacant by the resignation of Dr. James Bernard, and that an unpopular candidate was coming forward and was likely to be successful, the faculty sent a deputation to offer Mr. Brittan their unanimous support if he would come forward and stand for the post. To this he assented, and was accordingly elected; and he held the office until 1873, when he resigned and was made Consulting Physician.

This notice would be incomplete without some reference to the active part taken by Dr. Brittan at the time of the severe outbreak of cholera in Bristol, in 1849. The Medico-Chirurgical Society of the time determined to investigate the subject as thoroughly as possible, and formed pathological, microscopical, and chemical sub-committees of its members to make various researches and examinations of specimens, and to report the results. The Microscopical Committee were Dr. James Bernard, Dr. William Budd, Mr. Neild (one of the surgeons to the General Hospital), Mr. Brittan, Mr.

Joseph Swayne, and Mr. Prichard. Specimens of the excreta (rice-water evacuations, etc.) were obtained and carefully examined by all, but more particularly by Messrs. Brittan and Swayne, who both reported the discovery of certain cells, compound and simple, which they called cholera bodies or cells, and which they searched for in vain in corresponding secretions that were not choleraic. The same bodies were found in the substance scraped from the mucous membrane of the intestine at the *post mortem* examinations of cholera subjects, and Dr. Budd found some very similar organisms in specimens of drinking-water obtained from infected districts. Then Mr. Brittan, at the suggestion of Dr. James Bernard, condensed, with some trouble and much perseverance, a drachm or two of liquid from the air of a house from which five patients had been recently removed to the Cholera Hospital, two of whom died, and also from a cell in Bridewell, in which a man had just died, and in this fluid similar, but smaller, bodies were found.

The report of the Sub-Committee was published in *The Provincial Medical and Surgical Journal*, and diagrams and copious notices were inserted in that journal and in the *Lancet* and *Medical Times and Gazette;* and the matter was discussed largely in the London daily papers, to some of which letters and long articles had been sent. Dr. Budd, in a letter to the London *Times*, stated his belief in the germ theory in the propagation of cholera.[1] There was at that time a good deal of friction between some members of the committee, as sometimes happens in such cases even among members of our profession; but it was transient.

Then appeared the authoritative dictum, the bluntly-expressed manifesto of the Cholera Sub-Committee of the Royal College of Physicians (Dr. Baly and Dr. Gull), flatly contradicting the accuracy of the observations and deductions. They said that "bodies having the form of so-called cholera fungi are not to be detected in the air nor in the water;" that a "large number of these bodies have been traced to articles of medicine or food;" that "the most remarkable forms are to be discovered in the intestinal evacuations of persons labouring under diseases totally different from cholera;" and, as a conclusion to be drawn from their researches, that "the whole theory of the disease which has recently been propounded is erroneous, as far as it is based on the existence of the bodies in question." This led, of course, to some controversial letters in the journals; but the *ex cathedrâ* report of the College was accepted by the majority of the profession and also by the public, who believed then, as now, that medical and surgical skill is a good deal restricted to a circle with a limited radius from the General Post Office in London.

One result of the publicity given to this subject was an offer made by Government to Mr. Brittan to undertake the organisation and superintendence of the medical care of Taunton, where a sharp outbreak of cholera had occurred; and as it was early in his practice, which did not increase very rapidly, and the offer was five guineas a day and expenses, he had no hesitation about accepting it.

He was elected president of the Bath and Bristol Branch of the

1 Dr. Budd, soon after this period, expressed his opinion that phthisis tuberculosis is a zymotic disease.

British Medical Association in 1865, in succession to Dr. Falconer of Bath, and in his turn was succeeded by Mr. John Bartrum; and when the Bristol Medico-Chirurgical Society was resuscitated, in 1874, he was the first new president; his address and the discussion touching chiefly on the subject of contagion and the germ theory.

Dr. Brittan was careful and painstaking in the examination of his patients, and a help in the diagnosis of a difficult case. He had a considerable practice as consulting physician, and many patients of his own whom he generally attended; but he always managed to find time for a little shooting or fishing or painting, when he had a mind for a holiday. He was a private in the Bristol Volunteer Rifles when they were first established, and did some successful prize shooting.

He married very early in his career, and left one son, a solicitor, in Bristol; and after the death of his wife he retired from practice altogether in 1882, and went to live near Glandovey, Cardiganshire. He married again, leaving by his death a widow and two young children. His health had been somewhat precarious for some time, for he suffered from albuminuria and hypertrophy of the heart; and his death, which occurred in London, where he was temporarily staying, was very sudden, on the fifteenth day of February of this year, on the thirty-third anniversary of his election as Physician to the Bristol Royal Infirmary.

Royal College of Physicians of Edinburgh.

PARKIN BEQUEST.

In terms of the Bequest made to the Royal College of Physicians of Edinburgh by the late Dr. John Parkin, Fellow of the College, a prize is hereby offered for the best Essay—

> "On the Curative Effects of Carbonic Acid Gas or other forms of Carbon in Cholera, the different forms of Fever, and other Diseases."

The prize is of the value of One Hundred Pounds Sterling, and is open to competitors of all nations.

Essays intended for competition, which must be written in the English language, to be received by the Secretary not later than 31st December, 1892. Each Essay must bear a motto, and be accompanied by a sealed envelope bearing the same motto outside and the author's name inside.

The successful candidate must publish his Essay at his own expense, and present a printed copy of it to the College within the space of three months after the adjudication of the prize.

In name and by authority of the Council of the College,

G. A. GIBSON, M.D.,
Secretary.

March 9th, 1891.

SCRAPS

PICKED UP BY THE ASSISTANT-EDITOR.

L. S. D.—A subscriber to the *Journal* says that, considering the large incomes made by the dentists, the initials so often appearing after their names are given in the wrong order.

Pretty Good for a Six Year Old.—Dr. A. H. S. writes: I circumcised a little fellow six years of age the other day, and when he recovered from the anæsthetic he remarked, "That is the meanest thing one fellow ever did to another."—*The Medical Record.*

Helping the Doctor.—A country editor lay in an unconscious condition, and for some time it was feared that he was dead. "Can't you rouse him, doctor?" was anxiously asked. "No," the man of medicine replied. "I fear that life is extinct." Then the editor's assistant bent over and whispered in his ear, "A gentleman wants to put an advertisement in the paper." Immediately the unconscious man's face showed signs of returning life, and, struggling to a sitting posture, he said feebly, "How many lines?"

The Dancing Mania.—The effects of the Black Death (see *Journal*, September, 1889) had not yet subsided, and the graves of millions of its victims were scarcely closed, when a strange delusion arose in Germany, which took possession of the minds of men, and, in spite of the divinity of our nature, hurried away body and soul into the magic circle of hellish superstition. An old German Chronicle says:

> Viel hundert fingen zu Strassburg an
> Zu tanzen und springen Frau und Mann,
> Am offnen Markt, Gassen und Strassen
> Tag und Nacht ihrer viel nicht assen.
> Bis ihn das Wüthen wieder gelag.
> St. Vits Tanz ward genannt die Plag.

St. Vitus, whose name became associated with this affection, was a Sicilian youth who suffered martyrdom at the time of the persecution of the Christians, under Diocletian, in the year 303. In course of time he was ranked among the fourteen saintly helpers, and about the end of the fourteenth century a legend was invented that just before he bent his neck to the sword, he prayed to God that he might protect from the Dancing Mania all those who should solemnise the day of his commemoration and fast upon its eve, and that thereupon a voice from heaven was heard, saying, "Vitus, thy prayer is accepted." Thus St. Vitus became the patron saint of those afflicted with the dancing plague, as St. Martin, of Tours, was at one time the succourer of persons in small-pox; St. Antonius of those suffering under the "hellish fire," and as St. Margaret was the Juno Lucina of puerperal women. It was not until the beginning of the sixteenth century that St. Vitus's Dance, of the demoniacal origin of which no one had hitherto entertained the least doubt, was made the subject of

medical research. This must be credited to Paracelsus, that mighty, but as yet scarcely comprehended, reformer of medicine, whose aim it was to withdraw diseases from the pale of miraculous interposition and saintly influences, and explain their causes upon principles deduced from his knowledge of the human frame. From his time, the affection became every year more rare, so that at the beginning of the seventeenth century it was observed only occasionally in its ancient form.—Hecker's *Epidemics of the Middle Ages*.

Chorea, which in popular and professional language has the term St. Vitus's Dance as a synonym, has appeared in more recent times as an epidemic, and, as is well known, occasionally spreads by imitation; but it is a very different thing from the complaint described above.

"A meere dull Phiſtian."—In 1628 Edward Blount, the publisher of the 1623 Folio of Shakspere's plays, "aduentur'd to play the Mid-wifes part, helping to bring forth theſe Infants into the World, which the Father would haue ſmoothered: who hauing left them lapt vp in looſe Sheets, as ſoon as his Fancy was deliuered of them," and so gathered into a volume entitled *Micro-coſmographie* the "Essayes and Characters" which John Earle, afterwards Bishop of Worcester and then of Salisbury, had "written eſpecially for his priuate Recreation." The following is his "Character" of a physician of the period:—

His practice is ſome buſineſſe at bed-ſides, and his ſpeculation an Vrinall. Hee is diſtinguiſht from an Empericke by a round veluet cap, and Doctors gowne, yet no man takes degrees more ſuperfluouſly, for he is Doctor howſoeuer. He is ſworne to *Galen* and *Hypocrates*, as Vniuerſity men to their ſtatues, though they neuer ſaw them, and his diſcourſe is all Aphoriſmes, though his reading be onely *Alexis* of Piemont, or the Regiment of Health. The beſt Cure he ha's done is vpon his own purſe, which from a leane ſicklineſſe he hath made luſty, and in fleſh. His learning conſiſts much in reckoning vp the hard names of diſeaſes, and the ſuperſcriptions of Gallypots in his Apothecaries Shoppe, which are rank't in his Shelues, and the Doctors memory. He is indeed only languag'd in diſeaſes, and ſpeakes Greeke many times when he knows not. If he haue beene but a by-ſtander at some deſperate recouery, he is ſlandered with it, though he be guiltleſſe; and this breeds his reputation, and that his Practice; for his skill is meerly opinion. Of al odors he likes beſt the ſmel of Vrine, and holds *Veſpatians* rule, that no gaine is vnſauory. If you ſend this once to him, you muſt reſolue to be ſicke howſoeuer, for he will neuer leaue examining your Water till hee haue ſhakt it into a diſeaſe. Then follows a writ to his drugger in a ſtrange tongue, which hee vnderſtands though he cannot conſter. If he ſee you himſelfe, his preſence is the worſt viſitation: for if he cannot heale your ſicknes, he will bee ſure to helpe it. Hee tranſlates his Apothecaries Shop into your Chamber, and the very Windowes and benches muſt take Phiſicke. He tels you your Maladie in Greeke, though it be but a cold or head ach: which by good endeauour and diligence he may bring to ſome moment indeed; his moſt vnfaithfull act is, that hee leaues a man gaſping, and his pretence is, deat n and he haue a quarrell, and muſt not meet; but his feare is, leaſt the Carcaſſe ſhould bleed. Anotomies and other ſpectacles of Mortalitie haue hardened him, and hee's no more ſtruck with a Funerall than a Grauemaker. Noblemen vſe him for a director of their ſtomacks, and Ladies for wantonneſſe, eſpecially if hee bee a proper man. If he be ſingle, he is in league with his Shee-Apothecary, and becauſe it is the Phyſitian, the huſband is Patient. If he haue leaſure to be idle (that is to ſtudy) he ha's a ſmatch at Alcumy, and is ſicke of the Philoſophers ſtone, a diſeaſe vncurable, but by an abundant Phlebotomy of the purſe. His two maine oppoſites are a Mountebanke and a good Woman, and hee neuer ſhewes his learning ſo much as in an inuectiue againſt them, and their boxes. In concluſion he is a ſucking conſumption, and a very brother to the wormes, for they are both ingendred out of mans corruption.